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Alameda County
Environmental Health

February 14, 2008

SITE INVESTIGATION REPORT

3442 Adeline Street
Oakland, CA 94608

Project No. 274761

Prepared For

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Prepared By

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1.0 INTRODUCTION

AEI Consultants (AEI) has prepared this site investigation on behalf of Ms. Steffi Zimmerman (client) for the property located at 3433 Chestnut St. in the city of Oakland, Alameda County, California. AEI has been retained by the client to provide environmental engineering and consulting services for the subject property. During the removal of an underground storage tank (UST), it was discovered that a release of petroleum hydrocarbons had occurred at the property. This additional investigation was performed at the request of Alameda County Health Care Services Agency (ACHCSA) to characterize the extent of impacted soil, soil vapor and groundwater at the site.

2.0 SITE DESCRIPTION AND HISTORY

The subject site (hereinafter referred to as the "site" or "property") is situated on the northeast corner of 35th Street and Chestnut Street in a mixed commercial, industrial and residential area of Oakland. The front entrance to the property is addressed at 3442 Adeline St.; however, the rear entrance is reported with the City of Oakland with the address of 3433 Chestnut St. The on site building is currently a warehouse being used for storage.

2.1 UST Excavation

On February 22, 2000, Clearwater supervised the excavation and removal of a single-wall 3,750 gallon UST. Soil and groundwater samples were taken from the excavation pit and analyzed for total petroleum hydrocarbons as diesel (TPH-d), TPH as gasoline (TPH-g), methyl tertiary butyl ether (MTBE) and BTEX (benzene, toluene, ethyl benzene, and total xylenes). Based on concentrations from samples taken during tank removal, on May 15, 2006 the City of Oakland Fire Department requested the subject property to be characterized with additional soil and groundwater samples.

Soil sample concentrations of TPH-d and TPH-g were up to 850 milligrams per kilogram (mg/kg) and 920 mg/kg, respectively. Groundwater samples of TPH-d and TPH-g were 7,400 micrograms per liter (µg/L) and 34,000 µg/L, respectively.

2.2 Phase II Investigation

On June 23, 2006 Clearwater performed a Phase II Environmental Site Investigation by advancing four (4) soil borings to approximately 16 feet below ground surface (bgs) directly around the excavated UST location. Approximate locations of these borings can be found labeled as S1, S2, S3, and S4 on Figure 3.

Soil and groundwater samples were collected and tested for TPH-d, TPH-g, BTEX, 1,2-dichloroethane (1,2-DCA) and 1,2-dibromoethane (1,2-EDB).

Soil Samples

TPH-d concentrations ranged from 1.2 mg/kg (S1) to 250 mg/kg in (S3). TPH-g concentrations ranged from non-detectable to 1,200 mg/kg in S3. BTEX concentrations were low with the exception of total xylenes which reached a maximum of 100 mg/kg in S3. Soil samples tested for 1,2-DCA and 1,2-EDB were reported below the detection limit.

Groundwater Samples

TPH-d concentrations ranged from 4,000 µg/L (S2) to 40,000 µg/L (S4). TPH-g concentrations ranged from 20,000 µg/L (S1) to 120,000 µg/L in (S4). BTEX in groundwater samples was detected at elevated concentrations for all samples. Groundwater from S2 contained the highest concentration of BTEX at 7,000 µg/L, 260 µg/L, 920 µg/L, and 2,800 µg/L, respectively. Groundwater samples tested for 1,2-DCA and 1,2-EDB were reported below the detection limits.

3.0 GEOLOGY AND HYDROLOGY

Sediments encountered during the recent investigation are generally fine grained sediments (a combination of silty/sandy clay) just below the asphalt surface to depths ranging from approximately 4.5 to 10 feet bgs. The silty/sandy clay is underlain by interbedded layers of silty clay, clayey sand and silty gravel with varying amounts of fine to coarse grained sand and minor gravel to depths ranging from approximately 5 feet bgs to 9 feet bgs. This in turn is underlain by gravelly mixtures of sand, silt and clay up to 5 feet in thickness. The top of gravelly mixtures ranged from 9 feet to a maximum of 16 feet bgs in SB-6. Beneath the gravelly sediments, silty clay was encountered at depths of 9 ft bs to boring termination at 16 ft bgs. SB-6 is the only exception with a clayey gravel at 16 feet bgs. Fence diagrams A-A' and B-B' (Figures 6 and 7) indicate that the sediments are highly variable. A detailed description of the sediments and field measurements are included on boring logs in Appendix A.

Groundwater was present eventually in all borings, although, could be generally described as slow producing in several locations. Groundwater was present after approximately 24 hours in borings SB-3, SB-5, SB-8, and SB-11. SB-6 required four days of recharging in order to produce a minimal amount of groundwater to sample. Groundwater in the remaining borings was present at varying at approximately 8-14 feet bgs and is classified as very slow producing.

4.0 INVESTIGATION ACTIVITIES

A workplan dated March 23, 2007 was prepared by Clearwater Group and submitted to the ACHCSA for approval. Prior to initiating drilling activities, a soil boring permit (permit number W2007-1015) was obtained from the Alameda County Public Works Agency (ACPWA) and excavation permits (permit number X0701061 and X0701356) were obtained from the City of Oakland. A copy of these permits are included in Appendix B. Following permit approval, drilling activities were scheduled and Underground Utility Services (USA North) was notified to locate possible underground utilities in the area.

Prior to initiating drilling activities, a geophysical survey was performed to identify other underground utilities and possible additional USTs. The area was swept over using a reflective induction scan to identify any anomalies within the subsurface. No anomalies were found to be present beyond suspected underground utilities.

4.1 Soil Borings and Soil Collection

On October 1st and 3rd, 2007, AEI advanced eleven soil borings (SB-1 through SB-11) at the subject property. Eleven additional borings (SB-12 through SB-22) were advanced on December 20th and 21st, 2007. The borings were advanced with a direct-push drilling rig operated by Precision Sampling (CA C57 License # 636387). The borings were advanced to depths of approximately 16 feet bgs. Soil core borings SB-1 through SB-22 were continuously collected in a 2" diameter acrylic liner and logged by the onsite AEI geologist. Soil samples were described by AEI personnel and logged using the unified soil classification system and screened in the field using a photo ionization detector (PID). Field observations and screening data is presented on the borings logs in Appendix A.

Sampling equipment, including sampling barrels and other equipment used to sample, were decontaminated between samples using a triple rinse system containing Alconox™ or similar detergent.

A six inch sample at select depths was cut from the acrylic liner and sealed with Teflon tape and plastic caps, labeled with a unique identifier, placed in a cooler filled with water ice, and transported under appropriate chain-of-custody documentation for analysis to McCampell Analytical Inc., (DOHS Certification Number 1644) of Pittsburg, California. Select soil samples were analyzed for TPH-d by EPA method 8015, TPH-g, BTEX, and methyl tertiary butyl ether (MTBE) by EPA method 8021B and five fuel additives by EPA method 8260: tert-Amyl methyl ether (TAME), t-Butyl alcohol (TBA), diisopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), and methyl-t-butyl ether (MTBE).

Soil cuttings generated during the drilling and well installation activities were stored on-site in sealed and labeled 5-gallon buckets pending disposal.

4.2 Groundwater Sample Collection

In soil borings SB-1 though SB-22, upon encountering saturated sediments, a temporary ¾" diameter factory-slotted poly-vinyl chloride (PVC) casing was inserted into the borings to facilitate the collection of groundwater samples. A groundwater sample was not collected at time of drilling (ATD) from borings SB-3, SB-5 SB-8, SB-11, SB-12 through SB-15, and SB-20 through SB-22 due to a lack of sufficient groundwater. The temporary well casings were recharged with groundwater within a range of 24 to 96 hours. Groundwater samples were collected with a dedicated, disposable bailer into 40-ml volatile organic analysis (VOA) vials and 1 liter bottles. The groundwater samples were capped so that there was no head space or visible air bubbles within the vials, labeled with a unique identifier, placed in a cooler filled with ice, and transported under appropriate chain-of-custody documentation for analysis to McCampbell Analytical Inc., (DOHS Certification Number 1644) of Pittsburg, California. Groundwater samples were analyzed for TPH-d by EPA method 8015, TPH-g, BTEX and MTBE by EPA method 8021B and five fuel additives by EPA method 8260.

4.3 Soil Vapor Collection

Soil vapor samples were collected at three (3) locations (VB-1 through VB-3), locations presented in Figure 3. One (1) of the vapor sample locations (VB-3) was located outside of the building. Two (2) vapor sample locations were located inside the building (VB-1 and VB-2). The borings were drilled to an approximate five foot depth with a direct-push drilling rig.Following the completion of drilling, a clean and dry polyethelene soil gas probe equipped with a steel tip was inserted into the boring. Coarse grained sand was then poured into the boring to form a one foot thick layer to facilitate soil gas airflow. Dry bentonite grout was then poured into to the boring to surface elevation and subsequently hydrated with water. The one-quarter inch polyethelene probe was attached to a sampling port with a stainless steel gas tight compressor fitting passing through a one-eighth inch inert stainless steel tube manifold. Once the probe was in place, the sample was collected after waiting approximately twenty minutes for equilibration.

Soil gas was collected using a certified six liter Summa canister connected to an on/off gas tight valve via the inert stainless steel manifold. Prior to sample collection, each soil gas boring was purged approximately (3) three boring volumes using a gas tight syringe via an on/off gas tight valve via the inert stainless steel manifold. Immediately following purging, the initial vacuum pressure was recorded, then connected to an on/off flow regulator via the manifold and opened. Soil gas samples were collected for approximately (20) twenty minutes (or to 5 inHg vacuum in the summa canister) at 250 mL/minute through a gas tight stainless steel flow regulator connected to the manifold. Samples were appropriately labeled and entered into a chain of custody prior to shipping to the laboratory. During soil gas sampling, Isopropyl Alcohol was used as a leak check compound and placed around the manifold to confirm the sample was collected leak free. A copy of the chain of custody is available in Appendix B.

5.0 SAMPLE ANALYTICAL RESULTS

5.1 Soil Analytical Results

Select soil samples were analyzed from each of the borings, petroleum hydrocarbons were detected in the soil as follows:

- TPH-d concentrations ranged from <1.0 mg/kg to 450 mg/kg (SB-1-7.5).
- Concentrations of TPH-g ranged from <1.0 to 1,200 mg/kg (SB-1-7.5).
- MTBE was non detectable in all soil samples except for SB-11-15.5 at a concentration of 0.14 mg/kg.
- Benzene was detected at concentrations ranging from <0.005 mg/kg to 6.9 mg/kg (SB-10-11.5).
- Toluene concentrations ranged from <0.005 mg/kg to 2.5 mg/kg (SB-1-7.5).
- Concentrations of ethyl benzene ranged from <0.005 mg/kg to 24 mg/kg (SB-1-7.5).
- Detections of xylenes ranged from <0.005 mg/kg to 110 mg/kg (SB-1-7.5).

Soil analytical data is displayed on Table 1 and a copy of the laboratory analytical reports is included in Appendix C.

5.2 Groundwater Analytical Results

Petroleum hydrocarbons were detected in the groundwater samples as follows:

- TPH-d was detected in each of the borings SB-1 through SB-22 (except SB-3 which was non-detectable) at concentrations ranging from 280 µg/L (SB-19) to 12,000 µg/L (SB-14).
- TPH-g concentrations in borings SB-1 through SB-22 ranged from <50 µg/L to 83,000 µg/L (SB-11).
- MTBE was detected in SB-6 and SB-7 at concentrations of 2.0 µg/L and 6.1 µg/L, respectively.
- Benzene concentrations in borings SB-1 through SB-22 ranged from <0.5 µg/L (SB-2) to 10,000 µg/L (SB-11).
- Toluene was detected in borings SB-1 through SB-22 at concentrations ranging from <0.5 µg/L to 640 µg/L (SB-11).
- Ethylbenzene was detected in borings SB-1 through SB-22 at concentrations ranging from <0.5 µg/L to 2,700 µg/L (SB-11).
- Xylenes concentrations in borings SB-1 through SB-22 ranged from <0.5 µg/L to 7,900 µg/L (SB-11).
- TBA concentrations ranged from <5.0 µg/L to 840 µg/L (SB-11)

Groundwater analytical results are displayed on Table 2 and Figure 4. A copy of the laboratory analytical report is included in Appendix C.

5.3 Soil Vapor Analytical Results

Petroleum hydrocarbons detected in the soil vapor samples as follows:

- TPH-g was detected in VB-1 through VB-3 at concentrations of 1,900 $\mu g/m^3$, 3,100 $\mu g/m^3$, and 2,500 $\mu g/m^3$, respectively.
- MTBE was not detected in any soil vapor samples.
- Concentrations of benzene were detected in VB-1 through VB-3 at 130 $\mu g/m^3$, 32 $\mu g/m^3$, and 40 $\mu g/m^3$, respectively.
- Toluene concentrations were detected in VB-1 through VB-3 at 35 $\mu g/m^3$, 42 $\mu g/m^3$, and 42 $\mu g/m^3$, respectively.
- Concentrations of ethyl benzene were detected in VB-2 and VB-3 at 11 $\mu g/m^3$ and 16 $\mu g/m^3$, respectively.
- Xylenes were detected in VB-2 and VB-3 at concentrations of 50 $\mu g/m^3$and 49 $\mu g/m^3$, respectively.

Soil vapor analytical results are presented on Table 3 and Figure 5. A copy of the laboratory analytical report is included in Appendix C.

6.0 SUMMARY

AEI completed additional characterization of the release of petroleum hydrocarbons at the site. The investigation activities were conducted in two phases, the first of which consisted of eleven (11) soil borings (SB-1 to SB-11) and three soil gas probes sampled in October 2007 and an additional eleven (11) soil borings (SB-12 to SB-22) sampled in December 2007. The investigation was performed to further define the extent and magnitude of impacted soil and groundwater around the former UST area.

Based on the soil and groundwater sample analytical data, the release of primarily gasoline related petroleum contaminants has spread mostly in a northwesterly direction, beneath the warehouse building on the property. Concentrations of petroleum contaminants decrease with distance from the UST to the north and south along Chestnut Street and to the east across the street. The vertical extent of impacted soil has been generally defined to be between approximately 6 and 12 feet bgs and is likely controlled by the movement of shallow groundwater. Based on the distribution of dissolved phase petroleum hydrocarbons, groundwater is expected to flow predominately in a northwesterly direction; however, the extent of the release has not been defined to non-detect in this direction. Soil gas sample analytical data was compared to the RWQCB Environmental Screening Levels (ESLs) as a preliminary screening. With the exception of benzene in SV-1, the results were below these screening levels suggesting that vapor intrusion potential may be minimal at the southeastern corner of the building.

7.0 REPORT LIMITATIONS AND SIGNATURES

This report presents a summary of work completed by AEI, including observations and descriptions of site conditions. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide required information, but it cannot be assumed that they are entirely representative of all areas not sampled. All conclusions and recommendations are based on these analyses, observations, and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document.

These services were performed in accordance with generally accepted practices in the environmental engineering and construction field that existed at the time and location of the work. AEI requests comment and concurrence with this plan. If you have any questions regarding this report, we can be reached at (925) 944-2899.

Sincerely,
AEI Consultants

Harmony TomSun
Staff Geologist

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Senior Project Manager

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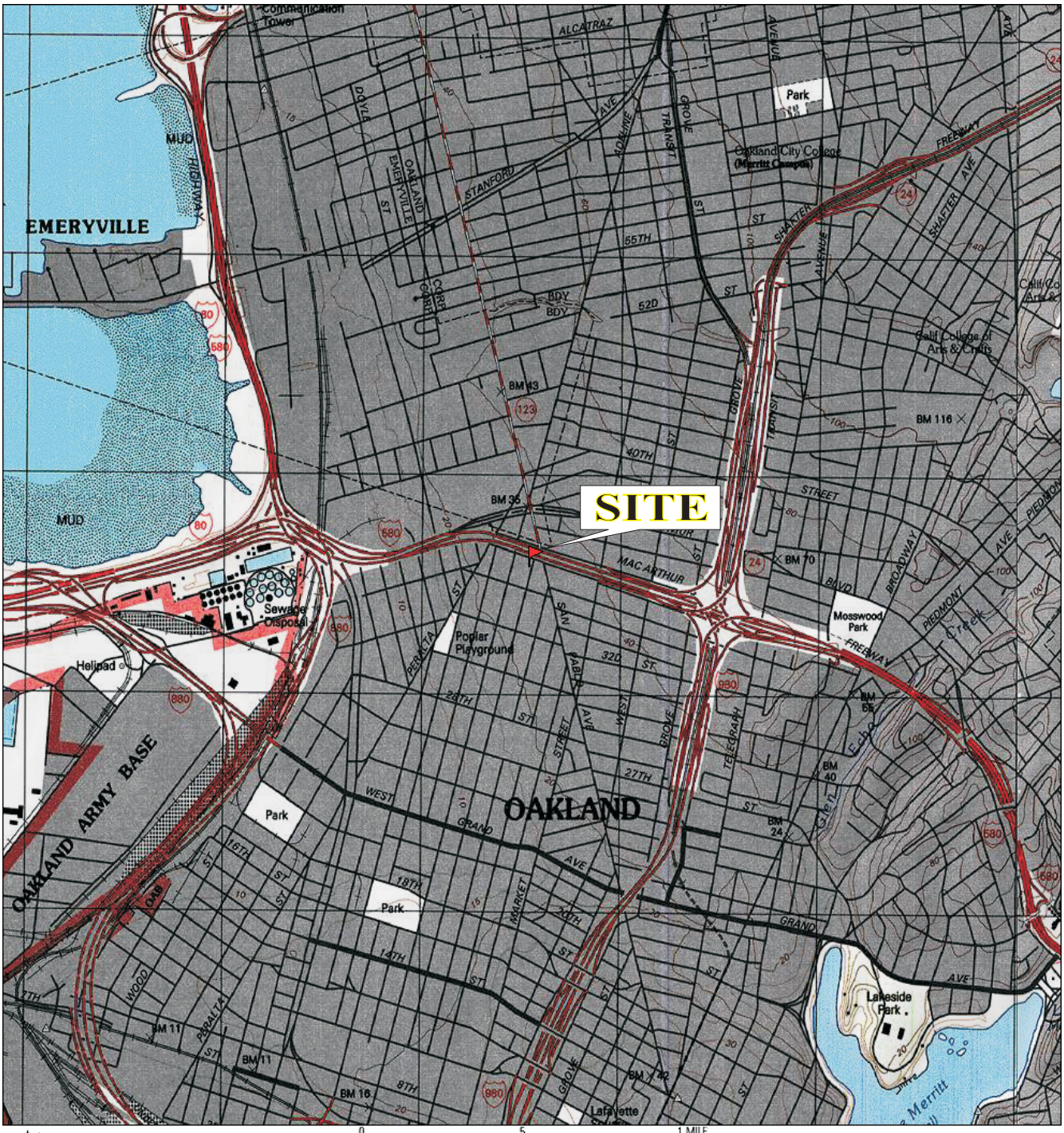
GeoTracker

FIGURES



Map created with TOPO!® ©2002 National Geographic (www.nationalgeographic.com/topo)

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2500 Camino Diablo, Suite 200, Walnut Creek, CA 94597

Site Location

3433 Chestnut Street
Oakland, CA 94608

FIGURE 1
Job No: 274761

N

Property Line

UST

Image From Google

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Site Property Line

3433 Chestnut Street
Oakland, CA 94608

FIGURE 2
Job No: 274761

Storage Yard

3442 Adeline St.

Storage Yard

A

SB-22

SB-21

SB-13

SB-12

SB-14

Interior Wall

SB-20

SB-3

3433 Chestnut St.

SB-15

SB-2/VB-2

SB-5

SB-11

Residential Housing

SB-1/VB-1

SB-4

SB-6

B'

SB-8

S3

SB-7

S4

S1

Sidewalk

VB-3

S2

SB-10

B

SB-19

SB-16

SB-9

Chestnut Street

SB-18

SB-17

A'

Sidewalk

Hotel Parking Lot and Yard

Hotel California

N

0' 10' 20'

Scale:
1 inch = 20 feet

- Clearwater Soil Borings (06/23/06)
- Former UST Location
- Soil Vapor (10/1/07 - 10/3/07)
- Soil Boring (10/1/07 - 10/3/07 and 12/20/07-12/21/07)
- Fuel Dispenser
- Driveway Entrance
- Fence Diagram A-A'
- Fence Diagram B-B'

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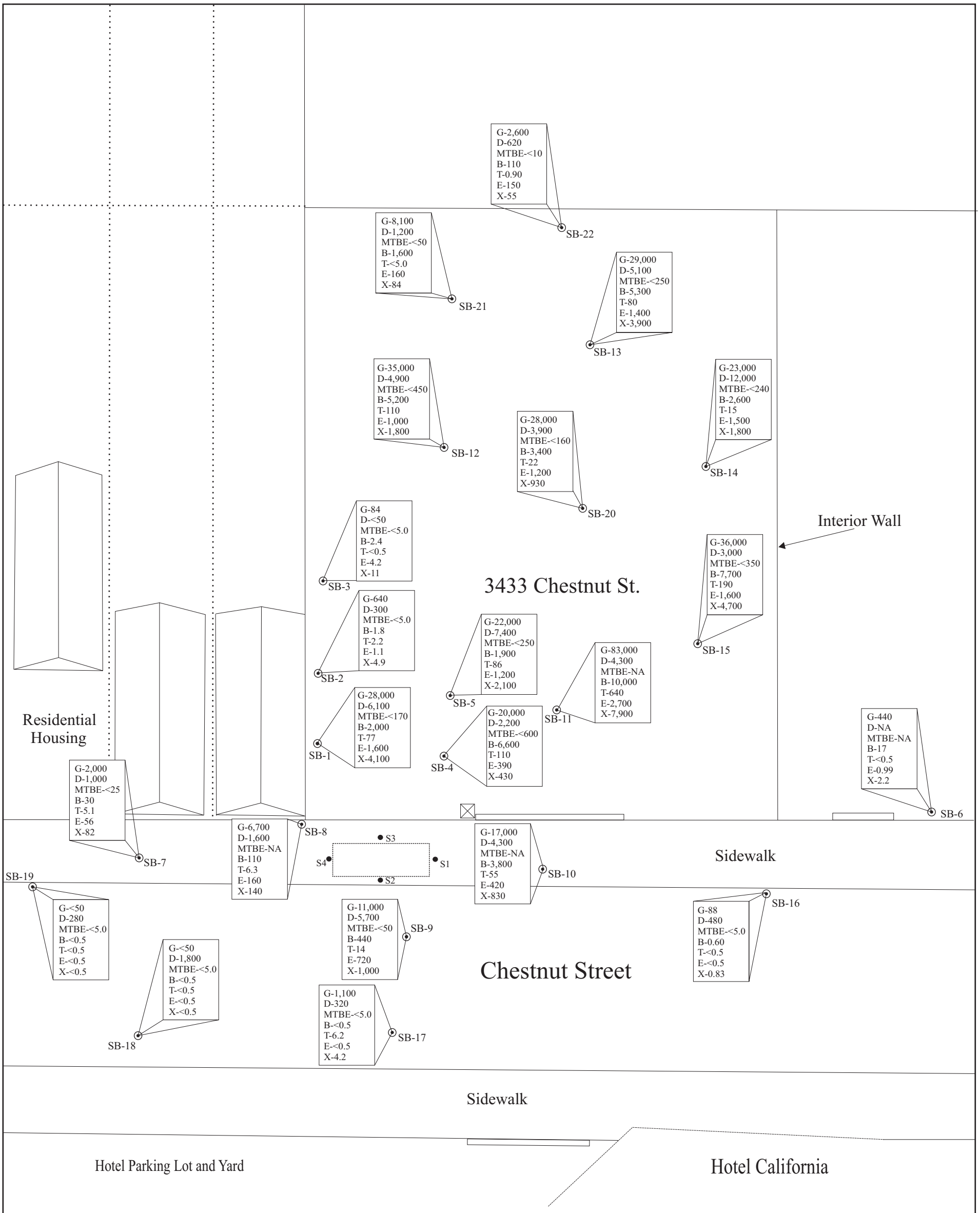
Site Plan

3433 Chestnut St.
Oakland, CA 94608

FIGURE 3
Job No: 274761



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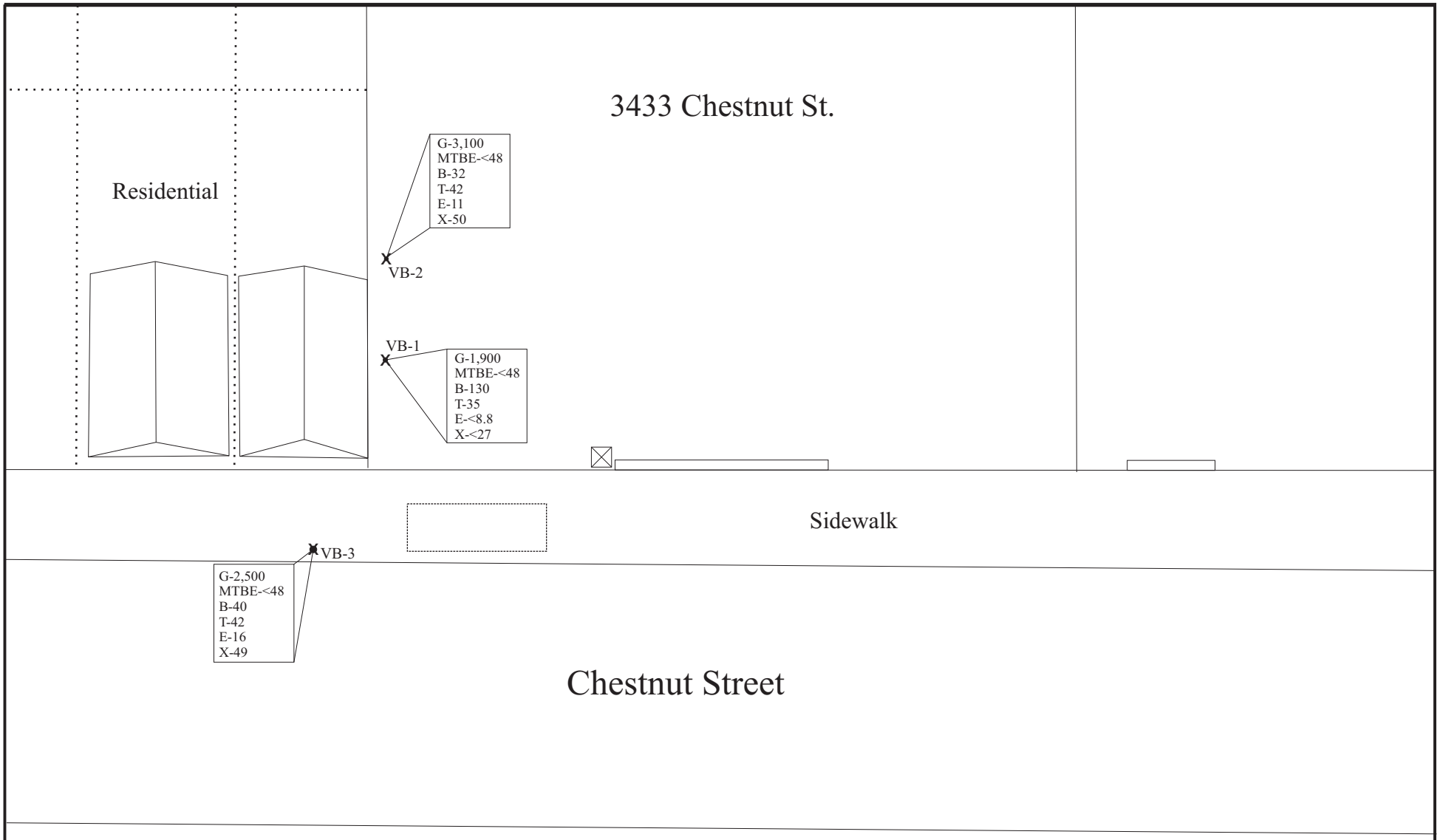
Groundwater Analytical Data

3433 Chestnut St.
Oakland, CA 94608

FIGURE 4
Job No: 274761



Soil Vapor Location

Former UST Location

UST Dispense Location

Roll-Up Door

G-Total Petroleum Hydrocarbons as Gasoline ($\mu g/m^3$)
MTBE-Methyl-t-butyl ether ($\mu g/m^3$)
B-Benzene ($\mu g/m^3$)
T-Toluene ($\mu g/m^3$)
E-Ethyl Benzene ($\mu g/m^3$)
X-Xylenes ($\mu g/m^3$)

Approximate Scale:
1 inch = 20 feet

0’ 10’ 20’

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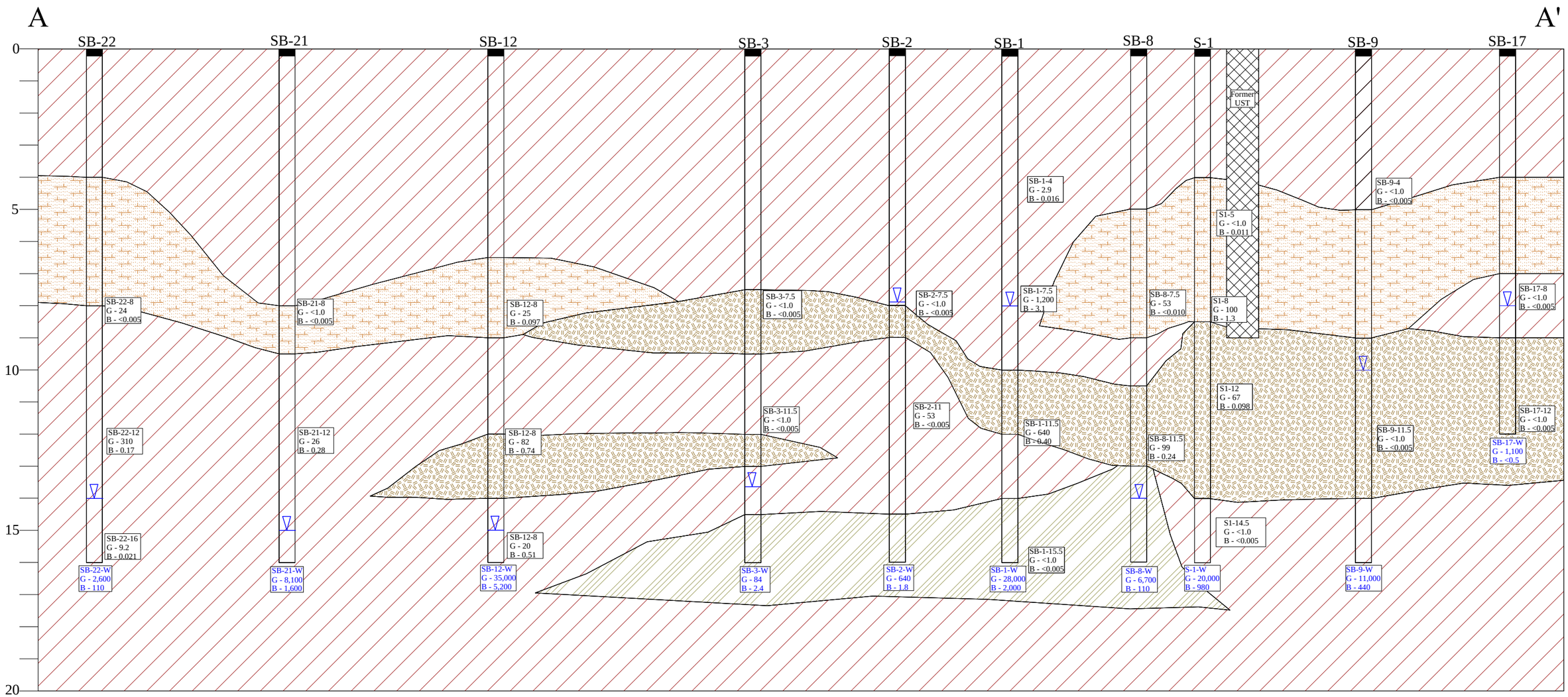
Soil Vapor Sample Results

3433 Chestnut St.
Oakland, CA 94608

FIGURE 5
Job No: 274761



Silty Clay

Fat Silty Clay

Clayey Sand

Gravelly Clay

G - Total Petroleum Hydrocarbons as Gasoline

B - Benzene

Groundwater Level (ATD)

SB-12-8
G - 20
B - 0.51
Soil Analyses (mg/kg)

SB-12-W
G - 35,000
B - 5,200
Water Analyses (µg/L)

0 10 20 Horizontal Scale (feet)

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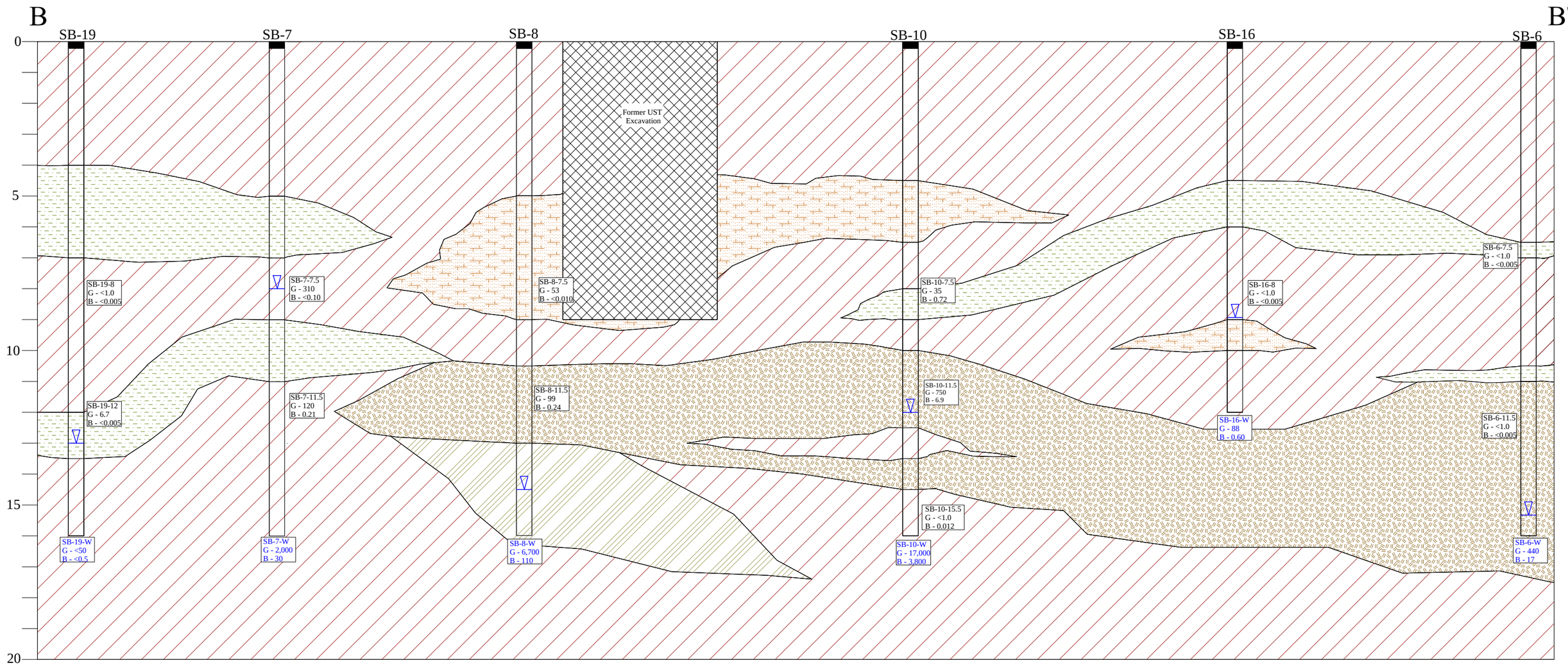
2500 CAMINO DIABLO, STE. 100, WALNUT CREEK, CA

Fence Diagram A-A'

3433 Chestnut St.
Oakland, CA 94608

FIGURE 6
PROJECT NO. 274761



Silty Clay

Fat Silty Clay

Clayey Gravel

Silty Sand

Gravelly Silt

G - Total Petroleum Hydrocarbons as Gasoline

B - Benzene

Groundwater Level (ATD)

SB-12-8
G - 20
B - 0.51
Soil Analyses (mg/kg)

SB-12-W
G - 35,000
B - 5,200
Water Analyses (µg/L)

0 10 20 Horizontal Scale (feet)

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2500 CAMINO DIABLO, STE. 100, WALNUT CREEK, CA

Fence Diagram B-B'

3433 Chestnut St.
Oakland, CA 94608

FIGURE 7
PROJECT NO. 274761

TABLES

Table 1: Soil Sample Analytical Data
3433 Chestnut St. Oakland, CA 94608
AEI Project #274761

Sample ID	Depth	Date	TPH-d	TPH-g	MTBE	Benzene	Toluene	E-Benzene	Xylenes	TAME	TBA	DIPE	ETBE	MTBE
			Method 8015C			*Method 8021B*				*Method 8260B*				
	ft		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NW	*6.5*	2/22/2000	130	130	---	0.16	0.26	0.73	6.3	---	---	---	---	---
SW	*6.5*	2/22/2000	850	920	---	0.3	0.37	5.3	22	---	---	---	---	---
S-1	*5*	6/23/2006	5.6	<1.0	---	0.011	<0.0050	<0.0050	<0.0050	---	---	---	---	---
	8		26	100	---	1.3	0.22	2.0	7.2	---	---	---	---	---
	12		45	67	---	0.098	<0.025	0.73	0.39	---	---	---	---	---
	14.5		1.2	<1.0	---	<0.0050	<0.0050	<0.0050	0.01	---	---	---	---	---
S-2	*4*	6/23/2006	4.7	<1.0	---	0.016	<0.0050	<0.0050	<0.0050	---	---	---	---	---
	7.5		84	460	---	1.2	0.36	9.4	24	---	---	---	---	---
	12		49	61	---	0.33	0.055	0.84	2.4	---	---	---	---	---
	14		<1.0	<1.0	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
S-3	*3.5*	6/23/2006	3.1	<1.0	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
	7.5		250	1,200	---	0.47	0.52	18	100	---	---	---	---	---
	10		76	220	---	0.26	<0.040	6.2	7.2	---	---	---	---	---
	14.5		1.3	<1.0	---	<0.0050	<0.0050	0.0056	0.016	---	---	---	---	---
S-4	*3.5*	6/23/2006	3.5	<1.0	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
	7.5		240	820	---	<0.20	<0.20	6.7	4.4	---	---	---	---	---
	11.5		120	500	---	0.079	<0.040	3.5	4.8	---	---	---	---	---
	14.5		1.3	<1.0	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---
SB-1	4	10/1/2007	---	2.9	<0.05	0.016	0.0079	<0.005	0.0094	---	---	---	---	---
	7.5		450	1,200	<5.0	3.1	2.5	24	110	---	---	---	---	---
	11.5		90	640	<2.5	0.40	1.5	9.3	23	<0.33	<3.3	<0.33	<0.33	<0.33
	15.5		---	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
SB-2	7.5	10/1/2007	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	11		6.1	53	<0.05	<0.005	0.24	0.0084	0.19	<0.005	<0.05	<0.005	<0.005	<0.005
SB-3	7.5	10/1/2007	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	11.5		<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005
SB-4	3.5	10/1/2007	---	1.2	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	7.5		170	430	<1.0	1.2	0.99	3.6	1.2	---	---	---	---	---
	11.5		25	340	<1.0	2.4	0.92	7.1	9.7	<0.005	<0.05	<0.005	<0.005	<0.005
	15.5		---	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
SB-5	3.5	10/1/2007	---	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	7.5		54	420	<1.5	4.0	1.1	9.5	18	---	---	---	---	---
	11.5		22	130	<1.0	0.43	0.10	1.2	0.77	<0.005	<0.05	<0.005	<0.005	<0.005
	15.5		---	<1.0	<0.05	0.017	<0.005	<0.005	<0.005	---	---	---	---	---

Table 1: Soil Sample Analytical Data
3433 Chestnut St. Oakland, CA 94608
AEI Project #274761

Sample ID	Depth	Date	TPH-d	TPH-g	MTBE	Benzene	Toluene	E-Benzene	Xylenes	TAME	TBA	DIPE	ETBE	MTBE
			Method 8015C			*Method 8021B*						*Method 8260B*		
	ft		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
SB-6	7.5	10/1/2007	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	11.5		<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005
SB-7	7.5	10/3/2007	90	310	<1.0	<0.10	0.48	0.28	0.38	---	---	---	---	---
	11.5		37	120	<0.50	0.21	0.069	0.39	0.22	<0.020	<0.20	<0.020	<0.020	<0.020
SB-8	7.5	10/3/2007	23	53	<0.10	<0.010	0.030	0.034	0.13	---	---	---	---	---
	11.5		13	99	<0.17	0.24	0.070	0.66	0.46	<0.010	<0.10	<0.010	<0.010	<0.010
SB-9	4	10/3/2007	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	11.5		<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.005
SB-10	7.5	10/3/2007	5.1	35	<0.10	0.72	0.024	0.47	0.079	---	---	---	---	---
	11.5		74	750	<10	6.9	1.6	13	33	<0.10	<1.0	<0.10	<0.10	<0.10
	15.5		---	<1.0	<0.05	0.012	<0.005	<0.005	0.0052	---	---	---	---	---
SB-11	11.5	10/3/2007	13	39	<0.3	0.68	0.086	0.76	2.3	---	---	---	---	---
	15.5		10	41	0.14	1.1	0.071	0.55	1.5	---	---	---	---	---
SB-12	8	12/20/2007	1.8	25	<0.10	0.097	0.024	0.81	1.3	---	---	---	---	---
	12		23	82	<0.50	0.74	0.14	1.5	2.9	---	---	---	---	---
	16		---	20	<0.25	0.51	0.083	0.48	1.8	---	---	---	---	---
SB-13	8	12/20/2007	66	180	<0.50	0.46	0.10	2.5	2.7	---	---	---	---	---
	12		74	170	<0.50	1.1	0.21	2.4	6.7	---	---	---	---	---
	16		<50	5.7	<0.05	0.87	0.017	0.12	0.10	---	---	---	---	---
SB-14	8	12/20/2007	<1.0	<1.0	<0.05	0.0092	<0.005	<0.005	<0.005	---	---	---	---	---
	12		83	910	<2.5	3.3	0.43	10	16	---	---	---	---	---
	16		---	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005					
SB-15	8	12/20/2007	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	12		61	390	<2.5	2.7	0.47	6.7	13	---	---	---	---	---
	16		---	40	<0.1	0.26	0.047	0.37	1.3	---	---	---	---	---
SB-16	8	12/20/2007	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
SB-17	8	12/20/2007	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	12		<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
SB-18	8	12/20/2007	18	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
SB-19	8	12/20/2007	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	12		<1.0	6.7	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---

Table 1: Soil Sample Analytical Data
3433 Chestnut St. Oakland, CA 94608
AEI Project #274761

Sample ID	Depth	Date	TPH-d	TPH-g	MTBE	Benzene	Toluene	E-Benzene	Xylenes	TAME	TBA	DIPE	ETBE	MTBE
			Method 8015C			*Method 8021B*						*Method 8260B*		
	ft		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
SB-20	8	12/20/2007	9.7	89	<0.25	0.070	0.14	0.050	0.14	---	---	---	---	---
	12		32	99	<0.17	0.61	0.061	1.6	1.4	---	---	---	---	---
	16		---	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
SB-21	8	12/21/2007	<1.0	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---
	12		5.8	26	<0.05	0.28	0.048	0.31	0.30	---	---	---	---	---
SB-22	8	12/21/2007	<1.0	24	<0.05	<0.005	0.070	0.016	0.059	---	---	---	---	---
	12		150	310	<1.7	0.17	<0.17	4.1	3.2	---	---	---	---	---
	16		---	9.2	<0.05	0.021	0.032	0.0052	0.0083	---	---	---	---	---
ESL			83	83	0.023	0.044	2.9	3.3	2.3	---		---	---	---

Notes:

mg/kg = milligrams per kilogram
ESL = Environmental Screening Level
NW = Soil Sample Collected from northwest sidewall during excavation
SW = Soil Sample Collected from southwest sidewall during excavation
TPH-g = total petroleum hydrocarbons as gasoline
TPH-d = total petroleum hydrocarbons as diesel
E-Benzene = ethyl benzene
TAME = tert-amyl methyl ether
ETBE = ethyl tert-butyl ether
TBA = tertiary butyl alcohol
DIPE = Di-isopropyl Ether
MTBE = methyl tert-butyl ether

Table 2: Groundwater Sample Analytical Data
3433 Chestnut St. Oakland, CA 94608
AEI Project #274761

Sample ID	Date	TPH-d *Method 8015C* µg/L	TPH-g µg/L	MTBE µg/L	Benzene *Method 8021B* µg/L	Toluene µg/L	E-Benzene µg/L	Xylenes µg/L	TAME µg/L	ETBE µg/L	TBA *Method 8260B* µg/L	DIPE µg/L	MTBE µg/L
Pit Water	2/22/2000	34,000	7,400	---	3,300	930	400	6,200	---	---	---	---	---
S-1	6/23/06	<10,000	20,000	---	980	70	1,500	1,100	---	---	---	---	---
S-2	6/23/06	<4,000	31,000	---	7,000	260	920	2,800	---	---	---	---	---
S-3	6/23/06	<1,500	23,000	---	490	67	1,200	3,300	---	---	---	---	---
S-4	6/23/06	<40,000	120,000	---	200	<15	3,500	2,900	---	---	---	---	---
SB-1	10/1/2007	6,100	28,000	<170	2,000	77	1,600	4,100	<25	<25	<250	<25	<25
SB-2	10/1/2007	300	640	<5.0	1.8	2.2	1.1	4.9	<0.5	<0.5.	<5.0	<0.5	<0.5
SB-3	10/1/2007	<50	84	<5.0	2.4	<0.5	4.2	11	<0.5	<0.5.	<5.0	<0.5	<0.5
SB-4	10/1/2007	2,200	20,000	<600	6,600	110	390	430	<17	<17	430	<17	<17
SB-5	10/1/2007	7,400	22,000	<250	1,900	86	1,200	2,100	<5.0	<5.0	120	<5.0	<5.0
SB-6	10/1/2007	---	440	---	17	<0.5	0.99	2.2	<0.5	<0.5	18	<0.5	2.0
SB-7	10/3/2007	1,000	2,000	<25	30	5.1	56	82	<0.5	<0.5.	<5.0	<0.5	6.1
SB-8	10/3/2007	1,600	6,700	---	110	6.3	160	140	<0.5	<0.5	12	<0.5	<0.5
SB-9	10/3/2007	5,700	11,000	<50	440	14	720	1,000	<1.7	<1.7	37	<1.7	<1.7
SB-10	10/3/2007	1,700	17,000	<100	3,800	55	420	830	<10	<10	510	11	<10
SB-11	10/3/2007	4,300	83,000	---	10,000	640	2,700	7,900	<25	<25	840	<25	<25
SB-12	12/20/2007	4,900	35,000	<450	5,200	110	1,000	1,800	---	---	---	---	---
SB-13	12/20/2007	5,100	29,000	<250	5,300	80	1,400	3,900	---	---	---	---	---
SB-14	12/20/2007	12,000	23,000	<240	2,600	15	1,500	1,800	---	---	---	---	---
SB-15	12/20/2007	3,000	36,000	<350	7,700	190	1,600	4,700	---	---	---	---	---
SB-16	12/20/2007	480	88	<5.0	0.60	<0.5	<0.5	0.83	---	---	---	---	---

Table 2: Groundwater Sample Analytical Data
3433 Chestnut St. Oakland, CA 94608
AEI Project #274761

Sample ID	Date	TPH-d	TPH-g	MTBE	Benzene	Toluene	E-Benzene	Xylenes	TAME	ETBE	TBA	DIPE	MTBE
		Method 8015C			*Method 8021B*						*Method 8260B*		
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SB-17	12/20/2007	320	1,100	<5.0	<0.5	6.2	<0.5	4.2	---	---	---	---	---
SB-18	12/20/2007	1,800	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
SB-19	12/20/2007	280	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
SB-20	12/20/2007	3,900	28,000	<160	3,400	22	1,200	930	---	---	---	---	---
SB-21	12/21/2007	1,200	8,100	<50	1,600	<5.0	160	84	---	---	---	---	---
SB-22	12/21/2007	620	2,600	<10	110	0.90	150	55	---	---	---	---	---
ESL	---	100	100	5.0	1.0	40	30	20	---	---	50,000	---	---

Notes:
µg/L = micrograms per liter
ESL = Environmental Screening Level
TPH-g = total petroleum hydrocarbons as gasoline
TPH-d = total petroleum hydrocarbons as diesel
MTBE = methyl tert-butyl ether
E-Benzene = ethyl benzene
TAME = tert-amyl methyl ether
ETBE = ethyl tert-butyl ether
TBA = tertiary butyl alcohol
DIPE = Di-isopropyl Ether

Table 3: Soil Vapor Sample Analytical Data
3433 Chestnut St. Oakland, CA 94608
AEI Project #274761

Boring	Date	Isopropyl Alcohol	TPH-g	MTBE	Benzene	Toluene	Ethyl Benzene	Xylenes
					Method TO15			
		µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
VB-1	10/1/2007	<25	1,900	<48	130	35	<8.8	<27
VB-2	10/1/2007	<25	3,100	<48	32	42	11	50
VB-3	10/1/2007	<25	2,500	<48	40	42	16	49
ESL		---	26,000	9,400	85	63,000	420,000	150,000

µg/m^3 = micrograms per cubic meter

ESL = Environmental Screening Level

TPH-g = total petroleum hydrocarbons as gasoline

MTBE = methyl tert-butyl ether

APPENDIX A

BORING LOGS

Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-1

Sheet 1 of 1

Date(s) Drilled **October 1, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **8 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Other		Concrety/Top Soil - Gravelly Sand		
				CL		Silty Clay, Black, Poorly Graded, Low Plasticity, Roots, 5% Fine Grained Gravel, Stiff		
		X	SB-1-4				5.4	
	5			CL		Stiff Clay, Greenish Gray/Yellowish Brown, Low Plasticity, Poorly Graded		
		X	SB-1-7.5			(ATD) ▽	35.7	
	10			GC		Gravelly Silty Clay, Coarse, Multi-Colored (green, gray, orange, yellowish-brown), Stiff, Low Plasticity		
		X	SB-1-11.5				350.1	
				CL		Silty Sandy Clay, Olive Greenish Gray, Soft, Moist		
				CH		Fat Clay, Light Yellowish Brown with Orange Veins, Poorly Graded, High Plasticity		
	15	X	SB-1-15.5				12.5	
						Bottom of Boring at 16 feet bgs		
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-2

Sheet 1 of 1

Date(s) Drilled **October 1, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **8 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Other		Top Soil/Fill Material		
				CL		Silty Clay, Black, Low Plasticity, Poorly Graded, Roots, 5% Fine Grained Gravel		
		☒	SB-2-3.5				5.5	
	5			CL		Gravelly Silty Clay, Dark Gray, Low Plasticity, Poorly Graded, 10% Fine Grained Gravel		
				CL		Silty Clay, Greenish Gray, Moderate Plasticity, 5% Fine Grained Gravel		
		☒	SB-2-7.5			(ATD) ▽	7.5	
				GC		Gravelly Sandy Clay, Multi-Colored (green, blue, orange, brown), Soft, Fine Grained Gravel		
	10			CL		Lean Silty Clay, Lean, Light Yellowish Brown and Greenish Gray, Moderate Plasticity		
		☒	SB-2-11				235.4	
				CL		Silty Clay, Light Yellowish Brown, 10% Fine Grained Gravel		
	15			CH		Fat Clay, Light Yellowish Brown with Orange Veins, High Plasticity, Moist		
		☒	SB-2-15.5				14.8	
						Bottom of Boring at 16 feet bgs		
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-3

Sheet 1 of 1

Date(s) Drilled **October 1, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **14 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Other		Top Soil/Fill Material		
				CL		Silty Clay, Black, Stiff, Low Plasticity, Poorly Graded, Fine Grained Gravel		
		☒	SB-3-3.5				11.1	
	5			CL		Sandy Clay, Coarse Grained, Hard, Dark Reddish/Yellowish Brown, Tight, Dry		
		☒	SB-3-7.5	GC		Gravelly Sandy Clay, Soft, Multicolored (yellow, orange, green, brown), Coarse Grained Sand, 15% Gravel	8.1	
	10			CL		Silty Clay, Stiff, Dry, Shells, Dark Brown/Black		
		☒	SB-3-11.5				5.8	
				GC		Gravelly Sandy Clay, Soft, Dark Yellowish Brown, Coarse Grained Sand, 15% Gravel		
				CL		Sandy Clay, Coarse Grained Sand, Poorly Graded, Wet, High Plasticity (ATD) ▽		
	15			CH		Fat Clay, High Water Content, High Plasticity, Reddish/Yellowish Brown		
		☒	SB-3-15.5				13.4	
						Bottom of Boring at 16 feet bgs		
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-4

Sheet 1 of 1

Date(s) Drilled **October 1, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Other		Fill Material/Top Soil		
				CL		Silty Clay, Black, Stiff, Low Plasticity, Poorly Graded, 5% Fine Grained Gravel		
		☒	SB-4-3.5				12.9	
	5			ML		Silty Clay, Very Fine Grained, Stiff, Greenish Gray/Yellowish Brown, Low Plasticity, 5% Fine Grained Gravel		
		☒	SB-4-7.5				225	
				GC		Gravelly Sandy Clay, Coarse Grained, Multicolored (green, gray, yellow, brown), Soft		
	10			CL		Silty Clay, Stiff, Dry, Greenish Gray, Low Plasticity		
		☒	SB-4-11.5	GC		Gravelly Sandy Clay, Greenish Grayish Brown, Soft, Moist, High Plasticity, Coarse Grained Sand, 10% Fine Grained Gravel	411	
				CH		Fat Clay, Light Yellowish Brown with Orange Veins, High Plasticity, High Water Content		
	15	☒	SB-4-15.5				9.1	
						Bottom of Boring at 16 feet bgs		
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-5

Sheet 1 of 1

Date(s) Drilled **October 1, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **11 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Other		Top Soil/Fill Material		
				CL		Silty Clay, Black, Stiff, Low Plasticity, Poorly Graded, Roots, 5% Fine Grained Gravel		
		☒	SB-5-3.5				12.1	
	5			ML		Silty Clay, Light Yellowish Brown and Bluish Gray, Stiff, Dry, Shells, Low Plasticity		
		☒	SB-5-7.5				339	
				GC		Gravelly Sandy Clay, Dark Olive Green, Soft, Coarse Sand, Fine Grained Gravel		
	10					(ATD) ▽		
		☒	SB-5-11.5				167	
				CL		Silty Clay, Lean, Light Olive Greenish Gray with Orange Veins, Moderate Plasticity		
	15	☒	SB-5-15.5				20.5	
						Bottom of Boring at 16 feet bgs		
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-6

Sheet 1 of 1

Date(s) Drilled **October 1, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Other		Top Soil/Fill Material		
				CL		Silty Clay, Black, Stiff, Dry, <5% Fine Grained Gravel		
		X	SB-6-3.5				7.8	
	5			CL		Gravelly Silty Clay, Light Yellowish Brown and Grayish Blue, Tight, 5% Fine Grained Gravel		
				SW		Coarse Sand, Light Yellow Reddish Brown, Well Graded, Wet, Very Fine Grained Gravel		
				CL		Silty Clay, Light Yellowish Brown, Tight, Lean, Increasing Plasticity with Depth		
		X	SB-6-7.5				13.2	
	10			ML		Silt, Light Grayish White, Dry		
				GC		Gravelly Silty Clay, Dark Brown, Moderate Plasticity, 15% Fine Grained Gravel		
		X	SB-6-11.5				19.1	
				GC		Gravelly Silty Clay, Light Olive Green, Tight, Slight Plasticity, 10% Fine Grained Gravel		
	15	X	SB-6-15				11.3	
						Bottom of Boring at 16 feet bgs		
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-7

Sheet 1 of 1

Date(s) Drilled **October 3, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **8 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Concrete		
				SP		Coarse Sand, Dark Yellowish Brown, Loose, Wet		
				CL		Silty Clay, Black, Moderate Plasticity Decreasing with Depth, Gravel Quantity Increasing with Depth		
		☒	SB-7-3.5				57	
	5			SM		Sandy Silt, Dark Gray, Dry, <5% Fine Grained Gravel		
		☒	SB-7-7.5	CL		Silty Clay, Lean, Dark Greenish Gray, Moist, Moderate Plasticity (ATD) ▽	92	
				SM		Sandy Silt, Olive Green, Strong Hydrocarbon Odor, 5% Fine to Medium Grained Gravel		
	10	☒	SB-7-11.5	CL		Silty Clay, Greenish Gray, Tight, Lean, Moderate Plasticity	390	
				CL		Sandy Clay, High Water Content, Greenish Gray, High Plasticity, Coarse Grained Sand		
	15	☒	SB-7-15.5				52	
						Bottom of Boring at 16 feet bgs		
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-8

Sheet 1 of 1

Date(s) Drilled **October 3, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **14 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Concrete		
				CL		Silty Clay, Black, Low Plasticity, Increasing Gravel Content with Depth, Roots, <5% Fine Grained Gravel		
		X	SB-8-3.5				5.2	
	5			GM		Gravelly Silt, Dark Gray/Black, 20% Fine Grained Gravel		
		X	SB-8-7.5				44.1	
				CL		Silty Clay, Green Bluish Gray, Stiff, Low Plasticity		
	10			GC		Gravelly Silt, Dark Greenish Gray, 10% Coarse Grained Gravel, Strong Hydrocarbon Odor, Moist		
		X	SB-8-11.5				369	
				CH		Silty Clay, Dark Greenish Gray, Fat Clay, High Plasticity Decreasing with Depth		
						(ATD) ▽		
	15	X	SB-8-15.5				1.2	
						Bottom of Boring at 16 feet bgs		
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-9

Sheet 1 of 1

Date(s) Drilled **October 3, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **10.5 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Asphalt		
				CL		Silty Sandy Clay, Light Olive Brown with Orange Veins, Stiff, Moist		
			SB-9-4				439	
	5			GM		Gravelly Silty Sand, Dark Greenish Gray, Increasing Silt with Depth, Low Plasticity, Moist		
			SB-9-7.5				104	
			SB-9-9	GC		Gravelly Silty Clay, Olive, Stiff, Low Plasticity	353	
	10			GC		(ATD) ▽ Gravelly Silty Clay, Dark Greenish Gray, Moderate Plasticity, Moist		
			SB-9-11.5				373	
				GC		Gravelly Silty Clay, Very Dark Greenish Gray, Soft, Moist, 10% Fine Grained Gravel		
				CL		Silty Clay, Light Olive Green with Orange Veins, High Water Content, Moderate Plasticity		
	15		SB-9-15.5				<1	
						Bottom of Boring at 16 feet bgs		
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-10

Sheet 1 of 1

Date(s) Drilled **October 3, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **12 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Concrete		
				CL		Silty Clay, Black, Low Plasticity, Increasing Gravel Content with Depth, Roots, <5% Fine Grained Gravel		
		☒	SB-10-3.5				23	
	5			GM		Gravelly Sandy Silt, Dark Greenish Gray, Coarse Grained Gravel		
				CL		Silty Clay, Olive Green, Stiff, Low Plasticity		
		☒	SB-10-7.5				81	
				SW		Sandy Clay, Dark Reddish Brown, Well Graded, Very Coarse Sand, Moist		
				CL		Silty Clay, Dark Greenish Gray, Tight, Poorly Graded		
	10			GC		Silty Clayey Gravel, Dark Greenish Gray, Stiff, Well Graded, Moist		
		☒	SB-10-11.5			(ATD) ▽	424	
				CL		Silty Clay, Dark Greenish Gray, Moderate Plasticity, Poorly Graded, Stiff, Moist		
				GC		Silty Gravelly Clay, Dark Greenish Gray, Well Graded, Stiff		
	15			CL		Silty Clay, Dark Green/Bluish Gray, Soft, Poorly Graded, Wet		
		☒	SB-10-15.5				35	
						Bottom of Boring at 16 feet bgs		
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-11

Sheet 1 of 1

Date(s) Drilled **October 3, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **16 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Concrete		
				CL		Silty Clay, Black, Low Plasticity, Increasing Gravel Content with Depth, <5% Fine Grained Gravel		
		X	SB-11-3.5				2.5	
	5			GM		Gravelly Sandy Silt, Dark Greenish Gray, 10% Coarse Grained Gravel, Soft		
		X	SB-11-7.5				4.1	
				CL		Silty Clay, Light Yellowish Brown, Tight, Gravel Content Increasing with Depth, Strong Hydrocarbon Odor		
	10	X	SB-11-11.5				24.2	
				GC		Gravelly Sand, Light Yellowish Brown, Soft, Moist		
				CH		Gravelly Clay, High Plasticity, <5% Fine Grained Gravel, Moist		
				CH		Silty Clay, Greenish Gray with Orange Veins, Medium Plasticity, High Water Content		
	15	X	SB-11-15.5			(ATD) ▽	367	
						Bottom of Boring at 16 feet bgs		
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-12

Sheet 1 of 1

Date(s) Drilled **December 20, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **15 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Concrete		
				CL		Silty Clay, Black, Low Plasticity, <5% Fine Grained Gravel		
		X	SB-12-4	CL		Silty Clay, Light Grayish Green, Slightly Mottled Orange, Very Fine Grained, Slight Plasticity	16.4	
	5			GM		Gravelly Silty Sand, Dark Greenish Gray, Soft, Loose, 10% Fine Grained Gravel, 50% Medium Grained Sand		
		X	SB-12-8				1079	
				CL		Gravelly Silty Clay, Light Yellowish Brown, Mottled Orange/Light Yellow, Tight/Stiff, 5% Fine Grained Gravel Content Increasing with Depth		
	10	X	SB-12-12	GC		Gravelly Sand, Light Yellowish Brown, Fine Grained Sand, 5% Fine to Medium Grained Gravel, Moist	849	
				CL		Silty Clay, Light Yellowish Brown, Mottled Orange, Tight, <5% Fine Grained Gravel, Moist		
	15					(ATD) ▽		
		X	SB-12-16			Bottom of Boring at 16 feet bgs	8.3	
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-13

Sheet 1 of 1

Date(s) Drilled **December 20, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **15 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Concrete		
				CL		Silty Clay, Black, Stiff, Dry, Slight Orange Mottling		
			SB-13-4	SM		Sandy Silt, Light Grayish Green, Stiff, Low Plasticity, Very Fine Grained, Poorly Graded		
	5			GM		Gravelly Silty Sand, Dark Greenish Gray, Soft, Loose, 10% Fine to Medium Grained Gravel		
			SB-13-8				592	
				CL		Gravelly Silty Clay, Light Yellowish Brown, Mottled Orange/Light Yellow, Low Plasticity, 5% Fine Grained Gravel		
	10		SB-13-12	GC		Gravelly Sandy Clay, Dark Greenish Black, Slight Plasticity, Well Graded, Moist	852	
				CL		Lean Silty Clay, Light Yellowish Brown, Mottled Grayish Green, Tight, Slight Plasticity, <5% Fine Grained Gravel, Moist		
	15					(ATD) ▽		
			SB-13-16			Bottom of Boring at 16 feet bgs	486	
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-14

Sheet 1 of 1

Date(s) Drilled **December 20, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **15 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Concrete		
				CL		Silty Clay, Black, Low Plasticity, Slight Orange Mottling, Roots		
		X	SB-14-4	SM		Gravelly Silty Clay, Light Grayish Green, Stiff, Low Plasticity, Very Fine Grained, Poorly Graded	3.0	
	5			GM		Gravelly Silt, Light Greenish Gray, Mottled Orange, Soft, Loose, 5% Fine Grained Gravel		
		X	SB-14-8				1.9	
				CL		Gravelly Silty Clay, Light Olive Brown, Mottled Light Grayish Green, Low Plasticity, 10% Fine Grained Gravel Increasing with Depth, Strong Hydrocarbon Odor		
	10	X	SB-14-12	GC		Gravelly Sand, Light Yellowish Brown, Slight Plasticity, Well Graded, Moist	579	
				CL		Lean Silty Clay, Light Grayish Green, Mottled Red/Orange, Tight, Slight Plasticity, Moist (ATD) ▽		
	15	X	SB-14-16			Bottom of Boring at 16 feet bgs		
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-15

Sheet 1 of 1

Date(s) Drilled **December 20, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **15 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Concrete		
				CL		Silty Clay, Black, Low Plasticity, Slight Orange Mottling, Roots		
		X	SB-15-4	SM		Gravelly Silty Clay, Greenish Gray, Stiff, Low Plasticity, Very Fine Grained, Moderately Graded	1.7	
	5							
		X	SB-15-8	GM		Gravelly Silt, Light Yellowish Brown, Mottled Orange, Soft, 5% Fine to Medium Grained Gravel	1.2	
				CL		Gravelly Silty Clay, Light Olive Brown, Mottled Green Gray, Low Plasticity, 5% Fine Grained Gravel		
	10							
		X	SB-15-12	SM		Sandy Silt, Dark Grayish Green, Soft, Slight Plasticity, Poorly Graded, Medium Grained Sand, Moist	25	
				CL		Gravelly Sandy Silt, Light Brown,Soft, Slight Plasticity, 5% Fine Grained Gravel, Moist		
	15			CL		Lean Clay, Light Brown, Mottled Grayish Green, Tight, Low Plasticity <5% Fine Grained Gravel (ATD) ▽		
		X	SB-15-16			Bottom of Boring at 16 feet bgs	5.3	
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-16

Sheet 1 of 1

Date(s) Drilled **December 20, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **12 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **9 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Concrete		
				CL		Silty Clay, Black, Moderate Plasticity, Dry, <5% Fine Grained Gravel		
		X	SB-16-4				4.1	
	5			SM		Sandy Silty Clay, Dark Grayish Green, Stiff, Low Plasticity, Very Fine Grained, Poorly Graded		
				CL		Silty Clay, Light Grayish Green, Mottled Light Yellowish Brown, Low Plasticity		
		X	SB-16-8				16.9	
				GM		(ATD) ▽ Gravelly Silt, Light Greenish Gray, Well Graded, Fine to Medium Grained Gravel, Saturated		
	10			CL		Silty Clay, Light Yellowish Brown, Mottled Grayish Green, Tight, <5% Fine Grained Grave, Very Moist		
		X	SB-16-12			Bottom of Boring at 12 feet bgs	<1	
	15							
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-17

Sheet 1 of 1

Date(s) Drilled **December 20, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **12 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **8 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Concrete		
				CL		Silty Clay, Black, Low Plasticity, Dry, Moderately Graded, <5% Fine Grained Gravel		
			SB-17-4	GM		Silty Sandy Gravel, Dark Brownish Gray, Mottled Grayish Green, Stiff, 5% Fine Grained Gravel	1.7	
	5			CL		Silty Sandy Clay, Dark Brownish Gray, Mottled Grayish Green, Moderately Loose, 5% Fine Grained Gravel, Moist		
			SB-17-8	CL		Silty Clay, Dark Grayish Green, Stiff, No Gravel, Slightly Moist (ATD) ▽	4.2	
				GC		Gravelly Silty Clay, Light Olive Brown, Fine to Medium Grained Gravel, Low Plasticity, Highly Saturated		
	10							
			SB-17-12			Bottom of Boring at 12 feet bgs	6.7	
	15							
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-18

Sheet 1 of 1

Date(s) Drilled **December 20, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **8 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **6 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Asphalt		
				GM		Gravelly Silty Sand, Black, Low Plasticity, Dry, Well Graded, 10% Fine Grained Gravel, Poor Recovery		
		X	SB-18-4	CL		Silty Clay, Light Grayish Green, Moderate Plasticity, <5% Fine Grained Gravel, Very Moist	6.7	
	5			CL		Saturated (ATD) ▽		
				SM		Silty Sand, Black, Medium Grained, Poorly Graded, Moist, Very Loose, Poor Recovery		
		X	SB-18-8			Bottom of Boring at 8 feet bgs	2.1	
	10							
	15							
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-19

Sheet 1 of 1

Date(s) Drilled **December 20, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **15 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Asphalt		
				CL		Silty Clay, Black, Low Plasticity, Poorly Graded, Dry		
		X	SB-19-4	SM		Sandy Silt, Greenish Gray, Low Plasticity, Moderately Graded, <5% Fine Grained Gravel	17.3	
	5			CL		Silty Clay, Greenish Gray, Mottled Yellowish Orange, Low Plasticity, Dry		
		X	SB-19-8				3.2	
	10			CL		Sandy Silty Clay, Light Yellowish Brown, Low Plasticity, <5% Fine Grained Gravel		
		X	SB-19-12	SM		Sandy Silt, Dark Greenish Brown, Low Plasticity, Moist	1.4	
				CL		Silty Clay, Dark Greenish Brown, Moderate Plasticity, Moist		
	15			CL		Silty Clay, Light Yellowish Brown, Mottled Light Grayish Green, Low Plasticity, Saturated (ATD) ▽		
		X	SB-19-16			Bottom of Boring at 16 feet bgs	8.6	
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-20

Sheet 1 of 1

Date(s) Drilled **December 20, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **15 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Cement		
				CL		Silty Clay, Black, Low Plasticity, Poorly Graded, Dry		
			SB-20-4	GM		Gravelly Sandy Silt, Greenish Gray, Tight, Dry	13.1	
	5							
				CL		Silty Clay, Greenish Gray, Tight, <5% Fine Grained Gravel		
			SB-20-8				549	
	10							
				GM		Gravelly Sandy Silt, Soft, Light Olive Brown, Moderate Plasticity, Fine Grained Gravel		
			SB-20-12				179	
				CL		Silty Clay, Light Yellowish Brown, Tight, Low Plasticity, Moist		
	15					(ATD) ▽		
			SB-20-16			Bottom of Boring at 16 feet bgs	74.9	
	20							

Figure

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Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-21

Sheet 1 of 1

Date(s) Drilled **December 20, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **15 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Cement		
				CL		Silty Clay, Black, Mottled Reddish Orange, Moderate Plasticity, Poorly Graded		
		X	SB-21-4	CL		Silty Clay, Light Yellowish Brown, Mottled Greenish Gray, Soft, <5% Fine Grained Gravel	4.8	
	5							
		X	SB-21-8	GM		Gravelly Sandy Silt, Light Greenish Gray, Medium Grained Sand, 5% Fine to Medium Grained Gravel	6.0	
				CL		Silty Clay, Light Yellowish Brown, Mottled Greenish Gray, Tight, <5% Fine Grained Gravel, Dry		
	10	X	SB-21-12				12.7	
				CL		Silty Clay, Light Yellowish Brown, Mottled Light Gray, Moderate Plasticity, 5% Fine Grained Gravel		
	15					(ATD) ▽		
						Bottom of Boring at 16 feet bgs		
	20							

Figure

X:\PROJECTS\CHARACTERIZATION & REMEDIATION\CHARACTERIZATION\274761 Consult (Steffi Zimmerman) Oakland\Soil Borings.bgs [AEI geoprobe 20.tpl]

Project: Zimmerman
Project Location: 3443 Chestnut St. Oakland, CA 94608
Project Number: 274761

Log of Boring SB-22

Sheet 1 of 1

Date(s) Drilled **December 20, 2007**	Logged By **Harmony TomSun**	Checked By **Peter McIntyre**
Drilling Method **Direct Push**	Drill Bit Size/Type	Total Depth of Borehole **16 feet bgs**
Drill Rig Type **Track Mounted GeoProbe**	Drilling Contractor **Precision**	Approximate Surface Elevation
Groundwater Level and Date Measured **14 feet ATD**	Sampling Method(s) **Tube**	Well Permit.
Borehole Backfill **Cement Slurry**	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			Asphalt		Cement		
				CL		Silty Clay, Black, Stiff, Dry, Roots		
	5		SB-22-4	GM		Gravelly Sandy Silt, Reddish Brown, Mottled Orange, Loose, 5% Fine Grained Gravel, Dry	2.2	
	10		SB-22-8	CL		Silty Clay, Light Olive Brown, Tight, Low Plasticity, <5% Fine Grained Gravel	5.8	
			SB-22-12	CL		Silty Clay, Olive, Mottled Light Orange, Tight, <5% Fine Grained Gravel, Dry	311	
						(ATD) ▽		
	15		SB-22-16			Bottom of Boring at 16 feet bgs	5.9	
	20							

Figure

X:\PROJECTS\CHARACTERIZATION & REMEDIATION\CHARACTERIZATION\274761 Consult (Steffi Zimmerman) Oakland\Soil Borings.bgs [AEI geoprobe 20.tpl]

APPENDIX B

PERMIT DOCUMENTATION

Alameda County Public Works Agency - Water Resources Well Permit

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 09/19/2007 By jamesy

Permit Numbers: W2007-1015
Permits Valid from 10/01/2007 to 10/03/2007

Application Id:	1190158793881	**City of Project Site:** Oakland
Site Location:	3433 Chestnut Street	
Project Start Date:	10/01/2007	**Completion Date:** 10/03/2007
Applicant:	AEI Consultants - Jeremy Smith 2500 Camino Diablo, Walnut Creek, CA 94597	**Phone:** 925-944-2899
Property Owner:	Steffi Zimmerman 6330 Swainland Road, Oakland, CA 94611	**Phone:** --
Client:	** same as Property Owner **	
Contact:	Jeremy Smith	**Phone:** -- **Cell:** --

Receipt Number: WR2007-0414
Payer Name : Jeremy Smith

Total Due:	$200.00
Total Amount Paid:	$200.00
Paid By: VISA	**PAID IN FULL**

Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitorinig Study - 12 Boreholes
Driller: Precision Sampling - Lic #: 636387 - Method: DP

Work Total: $200.00

Specifications

rmit umber	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2007-1015	09/19/2007	12/30/2007	12	2.00 in.	20.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.

2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

4. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

5. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

6. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and

CITY OF OAKLAND
Office of Planning and Building

EXCAVATION PERMIT

TO EXCAVATE IN STREETS OR OTHER SPECIFIED WORK

CIVIL ENGINEERING

Permit valid for 90 days from date of issuance.

PERMIT NUMBER	SITE ADDRESS/LOCATION
X0701061	* 3443 Chestnut St. Oakland, CA
APPROX. START DATE / APPROX. END DATE	24-HOUR EMERGENCY PHONE NUMBER (Permit not valid without 24-Hour number)
CONTRACTOR'S LICENSE # AND CLASS: 654919 / AHAZ	CITY BUSINESS TAX #

ATTENTION:

1- State law requires that the contractor/owner call Underground Service Alert (USA) two working days before excavating. This permit is not valid unless applicant has secured an inquiry identification number issued by USA. The USA telephone number is 1-800-642-2444. Underground Service Alert (USA) # _____

2- 48 hours prior to starting work, you MUST CALL (510) 238-3651 to schedule an inspection.

3- 48 hours prior to re-paving, a compaction certificate is required (waived for approved slurry backfill).

OWNER/BUILDER

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5 Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License law Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code, or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than $500):

☐ I, as an owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale).

☐ I, as owner of the property, am exempt from the sale requirements of the above due to: (1) I am improving my principal place of residence or appurtenances thereto, (2) the work will be performed prior to sale, (3) I have resided in the residence for the 12 months prior to completion of the work, and (4) I have not claimed exemption on this subdivision on more than two structures more than once during any three-year period. (Sec. 7044 Business and Professions Code).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project, (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License law).

☐ I am exempt under Sec. _____, B&PC for this reason _____.

WORKER'S COMPENSATION

☐ I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Worker's Compensation Insurance, or a certified copy thereof (Sec. 3700, Labor Code).

Policy # _____ Company Name _____

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California (not required for work valued at one hundred dollars ($100) or less).

NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Worker's Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked. This permit is issued pursuant to all provisions of Title 12 Chapter 12.12 of the Oakland Municipal Code. It is granted upon the express condition that the permittee shall be responsible for all claims and liabilities arising out of work performed under the permit or arising out of permittee's failure to perform the obligations with respect to street maintenance. The permittee shall, and by acceptance of the permit agrees to defend, indemnify, save and hold harmless the City, its officers and employees, from and against any and all suits, claims, or actions brought by any person for or on account of any bodily injuries, disease or illness or damage to persons and/or property sustained or arising in the construction of the work performed under the permit or in consequence of permittee's failure to perform the obligations with respect to street maintenance. This permit is void 90 days from the date of issuance unless an extension is granted by the Director of the Office of Planning and Building.

I hereby affirm that I am licensed under provisions of Chapter 9 of Division 3 of the Business and Professions Code and my license is in full force and effect (if contractor), that I have read this permit and agree to its requirements, and that the above information is true and correct under penalty of law.

X _____ 9/19/07

Signature of Permittee ☐ Agent for ☐ Contractor ☐ Owner Date

DATE STREET LAST RESURFACED	SPECIAL PAVING DETAIL REQUIRED? ☐ YES ☐ NO	HOLIDAY RESTRICTION? (NOV 1 - JAN 1) ☐ YES ☐ NO	LIMITED OPERATION AREA? (7AM-9AM & 4PM-6PM) ☐ YES ☐ NO
ISSUED BY		DATE ISSUED	

CITY OF OAKLAND
Office of Planning and Building

OB070853

EXCAVATION PERMIT

TO EXCAVATE IN STREETS OR OTHER SPECIFIED WORK

CIVIL ENGINEERING

Permit valid for 90 days from date of issuance.

PERMIT NUMBER: X 0 7 0 1 3 5 6	SITE ADDRESS/LOCATION: *3433 Chestnut St. Oakland, CA
APPROX. START DATE	APPROX. END DATE / 24-HOUR EMERGENCY PHONE NUMBER (Permit not valid without 24-Hour number)
CONTRACTOR'S LICENSE # AND CLASS: 654919 / AHAZ	CITY BUSINESS TAX #

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☐ I, as an owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale).

☐ I, as owner of the property, am exempt from the sale requirements of the above due to: (1) I am improving my principal place of residence or appurtenances thereto, (2) the work will be performed prior to sale, (3) I have resided in the residence for the 12 months prior to completion of the work, and (4) I have not claimed exemption on this subdivision on more than two structures more than once during any three-year period. (Sec. 7044 Business and Professions Code).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project. (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License law).

☐ I am exempt under Sec. _____, B&PC for this reason _____

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NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Worker's Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked. This permit is issued pursuant to all provisions of Title 12 Chapter 12.12 of the Oakland Municipal Code. It is granted upon the express condition that the permittee shall be responsible for all claims and liabilities arising out of work performed under the permit or arising out of permittee's failure to perform the obligations with respect to street maintenance. The permittee shall, and by acceptance of the permit agrees to defend, indemnify, save and hold harmless the City, its officers and employees, from and against any and all suits, claims, or actions brought by any person for or on account of any bodily injuries, disease or illness or damage to persons and/or property sustained or arising in the construction of the work performed under the permit or in consequence of permittee's failure to perform the obligations with respect to street maintenance. This permit is void 90 days from the date of issuance unless an extension is granted by the Director of the Office of Planning and Building.

I hereby affirm that I am licensed under provisions of Chapter 9 of Division 3 of the Business and Professions Code and my license is in full force and effect (if contractor), that I have read this permit and agree to its requirements, and that the above information is true and correct under penalty of law.

_____ 12/10/07

Signature of Permittee ☐ Agent for ☐ Contractor ☐ Owner — Date

DATE STREET LAST RESURFACED	SPECIAL PAVING DETAIL REQUIRED? ☐ YES ☐ NO	HOLIDAY RESTRICTION? (NOV 1 - JAN 1) ☐ YES ☐ NO	LIMITED OPERATION AREA? (6AM-9AM & 4PM-6PM) ☐ YES ☐ NO
ISSUED BY		DATE ISSUED	

APPENDIX C

LABORATORY ANALYSES
WITH CHAIN OF CUSTODY DOCUMENTATION

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #274761; Zimmerman	Date Sampled: 10/01/07
		Date Received: 10/01/07
	Client Contact: Jeremy Smith	Date Reported: 10/05/07
	Client P.O.:	Date Completed: 10/05/07

WorkOrder: 0710018

October 05, 2007

Dear Jeremy:

Enclosed are:

1). the results of **2** analyzed samples from your **#274761; Zimmerman project,**

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

070018

McCAMPBELL ANALYTICAL INC.

1534 Willow Pass Road
Pittsburg, CA 94565-1701
www.main@mccampbell.com
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAY

EDF Required? Coelt (Normal) No Write On (DW) No

Report To: AEI - Jenny Smith Bill To: AEI

Company: AEI

2500 Camino Diablo
Walnut Creek, CA 9596 E-Mail: jasmith@ae-consultants.com

Tele: (925) 944-2899 Fax: ( )

Project #: 274761 Project Name: Zimmerman

Project Location: 3443 Chestnut Street, Oakland, CA

Sampler Signature:

Lab Use Only

Pressurized By	Date	Pressurization Gas	
		N2	He

Notes: Isopropyl is leak Detection - Report as present or not

Field Sample ID (Location)	Collection Date	Collection Time	Canister SN#	Sampler Kit SN#	Analysis Requested	Indoor Air	Soil Gas	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
VB-1	10/1/07	~~0850~~ 0857	02593	MAN 316-671	TPHg, MBTEX		X	-28	-5		
VB-2	10/1/07	1000	3651	MAN 316-679	↓ TO3 TO15 ↓		X	-28	-5		

Relinquished By:	Date:	Time:	Received By:
	10/1/07	3:45	
Relinquished By:	Date:	Time:	Received By:
	10/1/07	5:45	
Relinquished By:	Date:	Time:	Received By:

Temp (°C): _____ Work Order #: _____

Condition: _____

Custody Seals Intact?: Yes ____ No ____ None ____

Shipped Via: _____

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0710018 **ClientID: AEL**

☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty

Report to:
Jeremy Smith
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597

Email: jasmith@aeiconsultants.com
TEL: (925) 283-600 FAX: (925) 944-289
ProjectNo: #274761; Zimmerman
PO:

Bill t
Denise Mockel
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
dmockel@aeiconsultants.com

Requested TAT: 5 days

Date Received **10/01/2007**
Date Printed: **10/01/2007**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0710018-001	VB-1	Air	10/1/07 8:57:00	☐	A	A	A									
0710018-002	VB-2	Air	10/1/07 10:00:00	☐		A	A									

Test Legend:

1	PREDF REPORT	2	TO15(MBTEX)_SOILGAS	3	TO3_SOIL(UG/M3)	4		5	
6		7		8		9		10	
11		12							

Prepared by: Rosa Venegas

Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **10/1/07 5:21:55 PM**

Project Name: **#274761; Zimmerman**

Checklist completed and reviewed by: Rosa Venegas

WorkOrder N°: **0710018** Matrix Air

Carrier: Client Drop-In

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp:		NA ☑
Water - VOA vials have zero headspace / no bubbles?	Yes ☐	No ☐	No VOA vials submitted ☑
Sample labels checked for correct preservation?	Yes ☑	No ☐	
TTLC Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑

Client contacted: Date contacted: Contacted by:

Comments:

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 10/01/07
2500 Camino Diablo, Ste. #200		Date Received: 10/01/07
Walnut Creek, CA 94597	Client Contact: Jeremy Smith	Date Extracted: 10/08/07
	Client P.O.:	Date Analyzed: 10/08/07

MBTEX in nL/L*

Extraction Method: TO-15 Analytical Method: TO15 Work Order: 0710018

Lab ID	0710018-001A	0710018-002A			Reporting Limit for DF =1	
Client ID	VB-1	VB-2				
Matrix	Air	Air				
Initial Pressure	11.79	12.16				
Final Pressure	23.48	24.24			S	A
Compound	**Concentration**				ug/kg	nL/L
Benzene	41	9.9			NA	2.0
Ethylbenzene	ND	2.5			NA	2.0
Isopropyl Alcohol	ND	ND			NA	10
Methyl-t-butyl ether (MTBE)	ND	ND			NA	13
Toluene	9.2	11			NA	2.0
Xylenes	ND	12			NA	6.0
Surrogate Recoveries (%)						
%SS1:	94	96				
%SS2:	96	98				
%SS3:	96	98				
Comments						

*vapor samples are reported in nL/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak; &) high/low surrogate due to matrix interference.

j) sample diluted due to high organic content.

McCampbell Analytical, Inc.
"When Quality Counts"

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Web: www.mccampbell.com E-mail: main@mccampbell.com
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AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 10/01/07
2500 Camino Diablo, Ste. #200		Date Received: 10/01/07
Walnut Creek, CA 94597	Client Contact: Jeremy Smith	Date Extracted: 10/08/07
	Client P.O.:	Date Analyzed: 10/08/07

MBTEX in µg/m³*

Extraction Method: TO-15 Analytical Method: TO15 Work Order: 0710018

Lab ID	0710018-001A	0710018-002A			Reporting Limit for DF =1	
Client ID	VB-1	VB-2				
Matrix	Air	Air				
Initial Pressure	11.79	12.16				
Final Pressure	23.48	24.24			S	A
Compound	**Concentration**				ug/kg	µg/m³
Benzene	130	32			NA	6.5
Ethylbenzene	ND	11			NA	8.8
Isopropyl Alcohol	ND	ND			NA	25
Methyl-t-butyl ether (MTBE)	ND	ND			NA	48
Toluene	35	42			NA	7.7
Xylenes	ND	50			NA	27
Surrogate Recoveries (%)						
%SS1:	94	96				
%SS2:	96	98				
%SS3:	96	98				
Comments						

*vapor samples are reported in µg/m³.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak; &) high/low surrogate due to matrix interference.

j) sample diluted due to high organic content.

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 10/01/07
2500 Camino Diablo, Ste. #200		Date Received: 10/01/07
Walnut Creek, CA 94597	Client Contact: Jeremy Smith	Date Extracted: 10/03/07
	Client P.O.:	Date Analyzed 10/03/07

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline in µg/m³*

Extraction method TO3 Analytical methods TO3 Work Order: 0710018

Lab ID	Client ID	Matrix	Initial Pressure	Final Pressure	TPH(g)	DF	% SS
001A	VB-1	A	11.79	23.48	1900	1	N/A
002A	VB-2	A	12.16	24.24	3100	1	N/A

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	A			1500	µg/m³
	S			NA	NA

*vapor samples are reported in µg/m³.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?) g) strongly aged gasoline or diesel range compounds are significant; j) sample diluted due to high organic content; k) this compound's reporting limit does not meet the ESL for residential soil gas; m) no recognizable pattern.j) sample diluted due to high organic content.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 10/01/07
2500 Camino Diablo, Ste. #200		Date Received: 10/01/07
Walnut Creek, CA 94597	Client Contact: Jeremy Smith	Date Extracted: 10/03/07
	Client P.O.:	Date Analyzed 10/03/07

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline in PPBV*

Extraction method TO3 Analytical methods TO3 Work Order: 0710018

Lab ID	Client ID	Matrix	Initial Pressure	Final Pressure	TPH(g)	DF	% SS
001A	VB-1	A	11.79	23.48	650	1	N/A
002A	VB-2	A	12.16	24.24	1000	1	N/A

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	A			500	nL/L
	S			NA	NA

*vapor samples are reported in nL/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

j) sample diluted due to high organic content.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR TO-15

W.O. Sample Matrix: Air QC Matrix: Air WorkOrder: 0710018

EPA Method TO-15	Extraction TO-15				BatchID: 30965			Spiked Sample ID: N/A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	nL/L	nL/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Benzene	N/A	25	N/A	N/A	N/A	97.7	96.8	0.851	N/A	N/A	70 - 130	30
Ethylbenzene	N/A	25	N/A	N/A	N/A	100	101	0.500	N/A	N/A	70 - 130	30
Methyl-t-butyl ether (MTBE)	N/A	25	N/A	N/A	N/A	98.8	98.7	0.0547	N/A	N/A	70 - 130	30
Toluene	N/A	25	N/A	N/A	N/A	97.8	98.3	0.508	N/A	N/A	70 - 130	30
Xylenes	N/A	75	N/A	N/A	N/A	98.7	100	1.34	N/A	N/A	70 - 130	30
%SS1:	N/A	500	N/A	N/A	N/A	103	103	0	N/A	N/A	70 - 130	30
%SS2:	N/A	500	N/A	N/A	N/A	101	102	0.777	N/A	N/A	70 - 130	30
%SS3:	N/A	500	N/A	N/A	N/A	102	103	1.10	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 30965 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710018-001A	10/01/07 8:57 AM	10/01/07	10/04/07 6:11 PM	0710018-002A	10/01/07 10:00 AM	10/01/07	10/04/07 4:48 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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QC SUMMARY REPORT FOR TO3

W.O. Sample Matrix: Air/Air QC Matrix: Air WorkOrder 0710018

EPA Method TO3 **Extraction TO3** **BatchID: 30991** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	nL/L	nL/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(g)	N/A	1250	N/A	N/A	N/A	109	110	0.710	N/A	N/A	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 30991 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710018-001A	10/01/07 8:57 AM	10/01/07	10/03/07 2:42 PM	0710018-001A	10/01/07 8:57 AM	10/01/07	10/03/07 2:42 PM
0710018-002A	10/01/07 10:00 AM	10/01/07	10/03/07 2:04 PM	0710018-002A	10/01/07 10:00 AM	10/01/07	10/03/07 2:04 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.
NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

DHS ELAP Certification N° 1644

QA/QC Officer

McCampbell Analytical, Inc.
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Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: # 274761; Zimmerman	Date Sampled: 10/01/07
		Date Received: 10/02/07
	Client Contact: Harmony TomSun	Date Reported: 10/10/07
	Client P.O.:	Date Completed: 10/10/07

WorkOrder: 0710052

October 10, 2007

Dear Harmony:

Enclosed are:

1). the results of **15** analyzed samples from your **# 274761; Zimmerman project,**

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

AEI 0710052

McCAMPBELL ANALYTICAL INC.

1534 Willow Pass Road
Pittsburg, CA 94565
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

EDF Required? ☐ Yes ☒ No

Report To: Harmony TomSun Bill To: same P.O. #
Company: AEI Consultants
2500 Camino Diablo, Suite 200
Walnut Creek, CA 94597 E-Mail: htomsun@aeiconsultants.com
Tele: (925) 944-2899 Fax: (925) 944-2895
Project #: 274761 Project Name: Zimmerman
Project Location: 3442 Adeline St., Oakland, CA 94608
Sampler Signature:

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015) – ~~Multi-Range~~ w/ Silica gel	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015) w/ Silica Gel	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other: HOLD	Other: 5 fuel oxys 8260 / MTBE / TAME	Comments: TBA DIPE ETBE
SB-1-4	Oakland	10/1/07	11:05	1	Liner		X				X																			X		HOLD
SB-1-7.5			11:10												X	X																
SB-1-11.5			11:15												X	X															X	HOLD
SB-1-15.5			11:20																										X			
SB-2-3.5			10:20																										X			
SB-2-7.5			10:25												X	X																
SB-2-11.			10:30												X	X															X	
SB-2-15.5			10:35																										X			
SB-3-3.5			2:05																										X			
SB-3-7.5			2:10												X	X																
SB-3-11.5			2:15												X	X															X	
SB-3-15.5			2:20																										X			
SB-4-3.5			11:50																										X			
SB-4-7.5			11:55												X	X																

Relinquished By:	Date:	Time:	Received By:
	10/2/07	1127	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 15.0
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB _____

PRESERVATION APPROPRIATE CONTAINERS ✓	VOAS	O&G	METALS	OTHER

PERSERVED IN LAB _____

AEI 0710052

McCAMPBELL ANALYTICAL INC.

1534 Willow Pass Road
Pittsburg, CA 94565
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

EDF Required? ☐ Yes ☒ No

Report To: Harmony TomSun	**Bill To:** same	**P.O. #**
Company: AEI Consultants		
2500 Camino Diablo, Suite 200		
Walnut Creek, CA 94597	**E-Mail:** htomsun@aeiconsultants.com	
Tele: (925) 944-2899	**Fax:** (925) 944-2895	
Project #: 274761	**Project Name:** Zimmerman	
Project Location: 3442 Adeline St., Oakland, CA 94608		
Sampler Signature:		

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other
SB-4-11.5	Oakland	10/1/07	12:00	1	Liner		X				X			
SB-4-15.5	"	"	12:05	"	"		"				"			
SB-5-3.5	"	"	1:30	"	"		"				"			
SB-5-7.5	"	"	1:35	"	"		"				"			
SB-5-11.5	"	"	1:40	"	"		"				"			
SB-5-15.5	"	"	1:45	"	"		"				"			
SB-6-3.5	"	"	3:00	"	"		"				"			
SB-6-7.5	"	"	3:05	"	"		"				"			
SB-6-11.5	"	"	3:10	"	"		"				"			
SB-6-15	"	"	3:15	"	"		"				"			
+ SB-1-W	"	"	3:30	4	VOA/AG	X					"			
+ SB-2-W	"	"	3:15	4	VOA/AG	"					"			
+ SB-4-W	"	"	3:40	4	VOA/AG	"					"			

Analysis Request

BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015) w/ Silica	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015) w/ Silica Gel	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI
X	X													
X	X													
X	X													
X	X													
X	X													
X	X													
X	X													
X	X													

Other

HOLD		5 fuel oxys 8260 / MTBE, TAME, TBA, DIPE, ETBE	
X			
X			
		X	
		X	
X			
X			
		X	
X			
		X	
		X	
		X	

Comments

Relinquished By:	Date:	Time:	Received By:
	10/2/07	1122	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 15.0
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB _____

	VOAS	O&G	METALS	OTHER
PRESERVATION				
APPROPRIATE CONTAINERS	✓			

PERSERVED IN LAB _____

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0710052 **ClientID: AEL**

☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty

Report to:
Harmony TomSun
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
Email:
TEL: (925) 283-600 FAX: (925) 944-289
ProjectNo: # 274761; Zimmerman
PO:

Bill t
Denise Mockel
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
dmockel@aeiconsultants.com

Requested TAT: 5 days

Date Received **10/02/2007**
Date Printed: **10/02/2007**

					Requested Tests (See legend below)											
Sample ID	**ClientSampID**	**Matrix**	**Collection Date**	**Hold**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
0710052-001	SB-1-4	Soil	10/1/2007	☑	A		A		A							
0710052-002	SB-1-7.5	Soil	10/1/2007	☐			A		A							
0710052-003	SB-1-11.5	Soil	10/1/2007	☐	A		A		A							
0710052-004	SB-1-15.5	Soil	10/1/2007	☑	A		A		A							
0710052-005	SB-2-3.5	Soil	10/1/2007	☑	A		A		A							
0710052-006	SB-2-7.5	Soil	10/1/2007	☐			A		A							
0710052-007	SB-2-11	Soil	10/1/2007	☐	A		A		A							
0710052-008	SB-2-15.5	Soil	10/1/2007	☑	A		A		A							
0710052-009	SB-3-3.5	Soil	10/1/2007 2:05:00	☑	A		A		A							
0710052-010	SB-3-7.5	Soil	10/1/2007 2:10:00	☐			A		A							
0710052-011	SB-3-11.5	Soil	10/1/2007 2:15:00	☐	A		A		A							
0710052-012	SB-3-15.5	Soil	10/1/2007 2:20:00	☑	A		A		A							
0710052-013	SB-4-3.5	Soil	10/1/2007	☑	A		A		A							
0710052-014	SB-4-7.5	Soil	10/1/2007	☐			A		A							
0710052-015	SB-4-11.5	Soil	10/1/2007	☐	A		A		A							

Test Legend:

1	5-OXYS_S	2	5-OXYS_W	3	G-MBTEX_S	4	G-MBTEX_W	5	TPH(D)WSG_S
6	TPH(D)WSG_W	7		8		9		10	
11		12							

Prepared by: Kimberly Burks

Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0710052 **ClientID: AEL**

☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty

Report to:
Harmony TomSun
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597

Email:
TEL: (925) 283-600 FAX: (925) 944-289
ProjectNo: # 274761; Zimmerman
PO:

Bill t
Denise Mockel
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
dmockel@aeiconsultants.com

Requested TAT: 5 days

Date Received **10/02/2007**
Date Printed: **10/02/2007**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0710052-016	SB-4-15.5	Soil	10/1/2007	☑	A		A		A							
0710052-017	SB-5-3.5	Soil	10/1/2007 1:30:00	☑	A		A		A							
0710052-018	SB-5-7.5	Soil	10/1/2007 1:35:00	☐			A		A							
0710052-019	SB-5-11.5	Soil	10/1/2007 1:40:00	☐	A		A		A							
0710052-020	SB-5-15.5	Soil	10/1/2007 1:45:00	☑	A		A		A							
0710052-021	SB-6-3.5	Soil	10/1/2007 3:00:00	☑	A		A		A							
0710052-022	SB-6-7.5	Soil	10/1/2007 3:05:00	☐			A		A							
0710052-023	SB-6-11.5	Soil	10/1/2007 3:10:00	☐	A		A		A							
0710052-024	SB-6-15	Soil	10/1/2007 3:15:00	☑	A		A		A							
0710052-025	SB-1-W	Water	10/1/2007 3:30:00	☐		A		A		A						
0710052-026	SB-2-W	Water	10/1/2007 3:15:00	☐		A		A		A						
0710052-027	SB-4-W	Water	10/1/2007 3:40:00	☐		A		A		A						

Test Legend:

1	5-OXYS_S	2	5-OXYS_W	3	G-MBTEX_S	4	G-MBTEX_W	5	TPH(D)WSG_S
6	TPH(D)WSG_W	7		8		9		10	
11		12							

Prepared by: Kimberly Burks

Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

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Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **10/2/2007 3:56:45 PM**

Project Name: **# 274761; Zimmerman**

Checklist completed and reviewed by: Kimberly Burks

WorkOrder N°: **0710052** Matrix Soil/Water

Carrier: Client Drop-In

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 15.0°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
TTLC Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑

Client contacted: Date contacted: Contacted by:

Comments:

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Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: # 274761; Zimmerman	Date Sampled: 10/01/07
2500 Camino Diablo, Ste. #200		Date Received: 10/02/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 10/02/07-10/10/07
	Client P.O.:	Date Analyzed 10/08/07-10/10/07

Oxygenated Volatile Organics by P&T and GC/MS*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0710052

Lab ID	0710052-003A	0710052-007A	0710052-011A	0710052-015A	Reporting Limit for DF =1	
Client ID	SB-1-11.5	SB-2-11	SB-3-11.5	SB-4-11.5		
Matrix	S	S	S	S		
DF	67	1	1	1	S	W
Compound	**Concentration**				mg/kg	µg/L
tert-Amyl methyl ether (TAME)	ND<0.33	ND	ND	ND	0.005	0.5
t-Butyl alcohol (TBA)	ND<3.3	ND	ND	ND	0.05	5.0
Diisopropyl ether (DIPE)	ND<0.33	ND	ND	ND	0.005	0.5
Ethyl tert-butyl ether (ETBE)	ND<0.33	ND	ND	ND	0.005	0.5
Methyl-t-butyl ether (MTBE)	ND<0.33	ND	ND	ND	0.005	0.5
Surrogate Recoveries (%)						
%SS1:	91	89	92	87		
Comments	j					

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

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Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: # 274761; Zimmerman	Date Sampled: 10/01/07
2500 Camino Diablo, Ste. #200		Date Received: 10/02/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 10/02/07-10/10/07
	Client P.O.:	Date Analyzed 10/08/07-10/10/07

Oxygenated Volatile Organics by P&T and GC/MS*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0710052

Lab ID	0710052-019A	0710052-023A	0710052-025A	0710052-026A	Reporting Limit for DF =1	
Client ID	SB-5-11.5	SB-6-11.5	SB-1-W	SB-2-W		
Matrix	S	S	W	W		
DF	1	1	50	1	S	W
Compound	**Concentration**				mg/kg	µg/L
tert-Amyl methyl ether (TAME)	ND	ND	ND<25	ND	0.005	0.5
t-Butyl alcohol (TBA)	ND	ND	ND<250	ND	0.05	5.0
Diisopropyl ether (DIPE)	ND	ND	ND<25	ND	0.005	0.5
Ethyl tert-butyl ether (ETBE)	ND	ND	ND<25	ND	0.005	0.5
Methyl-t-butyl ether (MTBE)	ND	ND	ND<25	ND	0.005	0.5
Surrogate Recoveries (%)						
%SS1:	99	97	101	105		
Comments			j			

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

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AEI Consultants	Client Project ID: # 274761; Zimmerman	Date Sampled: 10/01/07
2500 Camino Diablo, Ste. #200		Date Received: 10/02/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 10/02/07-10/10/07
	Client P.O.:	Date Analyzed 10/08/07-10/10/07

Oxygenated Volatile Organics by P&T and GC/MS*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0710052

					Reporting Limit for DF =1	
Lab ID	0710052-027A					
Client ID	SB-4-W					
Matrix	W					
DF	33				S	W
Compound	**Concentration**				mg/kg	µg/L
tert-Amyl methyl ether (TAME)	ND<17				0.005	0.5
t-Butyl alcohol (TBA)	430				0.05	5.0
Diisopropyl ether (DIPE)	ND<17				0.005	0.5
Ethyl tert-butyl ether (ETBE)	ND<17				0.005	0.5
Methyl-t-butyl ether (MTBE)	ND<17				0.005	0.5
Surrogate Recoveries (%)						
%SS1:	104					
Comments						

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

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AEI Consultants	Client Project ID: # 274761; Zimmerman	Date Sampled: 10/01/07
2500 Camino Diablo, Ste. #200		Date Received: 10/02/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 10/02/07-10/06/07
	Client P.O.:	Date Analyzed 10/03/07-10/06/07

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method SW5030B Analytical methods SW8021B/8015Cm Work Order: 0710052

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
002A	SB-1-7.5	S	1200,b,m	ND<5.0	3.1	2.5	24	110	100	127
003A	SB-1-11.5	S	640,a	ND<2.5	0.40	1.5	9.3	23	50	120
006A	SB-2-7.5	S	ND	ND	ND	ND	ND	ND	1	92
007A	SB-2-11	S	53,g,m	ND	ND	0.24	0.0084	0.19	1	108
010A	SB-3-7.5	S	ND	ND	ND	ND	ND	ND	1	97
011A	SB-3-11.5	S	ND	ND	ND	ND	ND	ND	1	88
014A	SB-4-7.5	S	430,g,m	ND<1.0	1.2	0.99	3.6	1.2	20	108
015A	SB-4-11.5	S	340,a,m	ND<1.0	2.4	0.92	7.1	9.7	20	112
018A	SB-5-7.5	S	420,a	ND<1.5	4.0	1.1	9.5	18	20	83
019A	SB-5-11.5	S	130,b,m	ND<1.0	0.43	ND<0.10	1.2	0.77	20	108
022A	SB-6-7.5	S	ND	ND	ND	ND	ND	ND	1	93
023A	SB-6-11.5	S	ND	ND	ND	ND	ND	ND	1	87
025A	SB-1-W	W	28,000,a	ND<170	2000	77	1600	4100	33	117
026A	SB-2-W	W	640,a	ND	1.8	2.2	1.1	4.9	1	109
027A	SB-4-W	W	20,000,a	ND<600	6600	110	390	430	33	97

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high organic / MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) value derived using a client specified carbon range; o) results are reported on a dry weight basis; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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AEI Consultants	Client Project ID: # 274761; Zimmerman	Date Sampled: 10/01/07
2500 Camino Diablo, Ste. #200		Date Received: 10/02/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 10/02/07
	Client P.O.:	Date Analyzed 10/05/07-10/09/07

Diesel Range (C10-C23) Extractable Hydrocarbons with Silica Gel Clean-Up*

Extraction method SW3510C/3630C/SW3550C/3630C Analytical methods SW8015C Work Order: 0710052

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0710052-002A	SB-1-7.5	S	450,d,b	5	89
0710052-003A	SB-1-11.5	S	90,d	1	118
0710052-006A	SB-2-7.5	S	ND	1	101
0710052-007A	SB-2-11	S	6.1,n	1	101
0710052-010A	SB-3-7.5	S	ND	1	103
0710052-011A	SB-3-11.5	S	ND	1	102
0710052-014A	SB-4-7.5	S	170,d	2	100
0710052-015A	SB-4-11.5	S	25,d	1	108
0710052-018A	SB-5-7.5	S	54,d	1	114
0710052-019A	SB-5-11.5	S	22,d,b	1	109
0710052-022A	SB-6-7.5	S	ND	1	103
0710052-023A	SB-6-11.5	S	ND	1	103
0710052-025A	SB-1-W	W	6100,d	1	107
0710052-026A	SB-2-W	W	300,d	1	82
0710052-027A	SB-4-W	W	2200,d,b	1	103

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	1.0	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit; r) results are reported on a dry weight basis

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder: 0710052

EPA Method SW8260B	Extraction SW5030B	BatchID: 31024	Spiked Sample ID: 0710081-002A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	0.050	88	87.7	0.328	94.4	94.5	0.130	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	0.25	83.7	95.8	13.5	96	88.6	7.98	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	0.050	97.5	95	2.62	105	106	0.765	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	0.050	85.1	82.4	3.16	92.9	93.6	0.746	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	0.050	88.8	85.2	4.14	101	102	0.794	70 - 130	30	70 - 130	30
%SS1:	97	0.050	92	93	1.24	96	97	0.197	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 31024 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710052-003A	10/01/07 11:15 AM	10/02/07	10/08/07 11:03 PM	0710052-007A	10/01/07 10:30 AM	10/02/07	10/10/07 2:46 AM
0710052-011A	10/01/07 2:15 AM	10/02/07	10/08/07 11:48 PM	0710052-015A	10/01/07 12:00 PM	10/02/07	10/08/07 9:32 PM
0710052-019A	10/01/07 1:40 AM	10/02/07	10/08/07 10:18 PM	0710052-023A	10/01/07 3:10 AM	10/02/07	10/10/07 1:54 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder 0710052

EPA Method SW8015C	Extraction SW3550C/3630C	BatchID: 30992	Spiked Sample ID: 0710019-001A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(d)	5.6	20	101	102	0.893	107	109	2.03	70 - 130	30	70 - 130	30
%SS:	106	50	103	103	0	116	117	0.782	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 30992 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710052-002A	10/01/07 11:10 AM	10/02/07	10/09/07 4:11 AM	0710052-003A	10/01/07 11:15 AM	10/02/07	10/07/07 6:02 AM
0710052-006A	10/01/07 10:25 AM	10/02/07	10/07/07 7:10 AM	0710052-007A	10/01/07 10:30 AM	10/02/07	10/07/07 8:19 AM
0710052-010A	10/01/07 2:10 AM	10/02/07	10/07/07 9:27 AM	0710052-011A	10/01/07 2:15 AM	10/02/07	10/07/07 12:52 PM
0710052-014A	10/01/07 11:55 AM	10/02/07	10/05/07 1:58 AM	0710052-015A	10/01/07 12:00 PM	10/02/07	10/07/07 2:01 PM
0710052-018A	10/01/07 1:35 AM	10/02/07	10/07/07 3:09 PM	0710052-019A	10/01/07 1:40 AM	10/02/07	10/06/07 8:23 AM
0710052-022A	10/01/07 3:05 AM	10/02/07	10/07/07 4:53 AM	0710052-023A	10/01/07 3:10 AM	10/02/07	10/06/07 4:21 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder 0710052

EPA Method SW8021B/8015Cm Extraction SW5030B BatchID: 30996 Spiked Sample ID: 0710022-021A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	0.60	98.6	104	5.17	77.8	99.2	24.2	70 - 130	30	70 - 130	30
MTBE	ND	0.10	101	105	4.47	86	98.8	13.9	70 - 130	30	70 - 130	30
Benzene	ND	0.10	91.3	104	12.9	89.1	99.9	11.4	70 - 130	30	70 - 130	30
Toluene	ND	0.10	85.8	95.6	10.8	79.8	90.2	12.3	70 - 130	30	70 - 130	30
Ethylbenzene	ND	0.10	92.2	104	11.7	86.7	97.1	11.3	70 - 130	30	70 - 130	30
Xylenes	ND	0.30	85.7	95.7	11.0	81	91.3	12.0	70 - 130	30	70 - 130	30
%SS:	86	0.10	98	109	10.6	89	93	4.91	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 30996 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710052-002A	10/01/07 11:10 AM	10/02/07	10/05/07 12:47 AM	0710052-003A	10/01/07 11:15 AM	10/02/07	10/06/07 4:01 AM
0710052-006A	10/01/07 10:25 AM	10/02/07	10/03/07 5:27 AM	0710052-007A	10/01/07 10:30 AM	10/02/07	10/03/07 7:22 PM
0710052-010A	10/01/07 2:10 AM	10/02/07	10/03/07 6:57 AM	0710052-011A	10/01/07 2:15 AM	10/02/07	10/03/07 12:01 PM
0710052-014A	10/01/07 11:55 AM	10/02/07	10/03/07 8:54 PM	0710052-015A	10/01/07 12:00 PM	10/02/07	10/03/07 9:24 PM
0710052-018A	10/01/07 1:35 AM	10/02/07	10/04/07 1:17 AM	0710052-019A	10/01/07 1:40 AM	10/02/07	10/04/07 1:50 AM
0710052-022A	10/01/07 3:05 AM	10/02/07	10/05/07 2:47 AM	0710052-023A	10/01/07 3:10 AM	10/02/07	10/06/07 7:42 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

DHS ELAP Certification N° 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder 0710052

EPA Method SW8260B **Extraction SW5030B** **BatchID: 31007** **Spiked Sample ID: 0710057-002C**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	10	87.8	99.4	12.4	89	94.9	6.46	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	85.9	86.5	0.601	83	87.3	5.05	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	101	115	13.2	98	105	6.65	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	88.3	103	15.1	89.5	95	5.97	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	87.6	114	25.3	98.8	102	3.47	70 - 130	30	70 - 130	30
%SS1:	111	10	91	102	11.4	102	100	1.72	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 31007 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710052-025A	10/01/07 3:30 AM	10/09/07	10/09/07 6:48 AM	0710052-026A	10/01/07 3:15 AM	10/09/07	10/09/07 7:36 AM
0710052-027A	10/01/07 3:40 AM	10/09/07	10/09/07 8:26 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder 0710052

EPA Method SW8021B/8015Cm **Extraction SW5030B** **BatchID: 31012** **Spiked Sample ID: 0710066-001A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	77.6	79.6	2.57	100	101	1.23	70 - 130	30	70 - 130	30
MTBE	ND	10	112	117	4.40	91.6	99.2	7.94	70 - 130	30	70 - 130	30
Benzene	ND	10	95	97.5	2.62	94.9	100	5.33	70 - 130	30	70 - 130	30
Toluene	ND	10	105	108	2.74	94.7	98.3	3.67	70 - 130	30	70 - 130	30
Ethylbenzene	ND	10	102	105	3.10	94.2	99.6	5.58	70 - 130	30	70 - 130	30
Xylenes	ND	30	110	113	2.99	90.7	95.3	5.02	70 - 130	30	70 - 130	30
%SS:	91	10	86	90	4.49	104	107	2.77	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 31012 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710052-025A	10/01/07 3:30 AM	10/06/07	10/06/07 6:10 PM	0710052-026A	10/01/07 3:15 AM	10/06/07	10/06/07 4:21 PM
0710052-027A	10/01/07 3:40 AM	10/06/07	10/06/07 3:12 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder 0710052

EPA Method SW8015C **Extraction SW3510C/3630C** **BatchID: 31013** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(d)	N/A	1000	N/A	N/A	N/A	106	104	1.95	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	116	116	0	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 31013 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710052-025A	10/01/07 3:30 AM	10/02/07	10/05/07 6:27 PM	0710052-026A	10/01/07 3:15 AM	10/02/07	10/06/07 4:34 AM
0710052-027A	10/01/07 3:40 AM	10/02/07	10/06/07 12:03 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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"When Quality Counts"

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: # 274761; Zimmerman	Date Sampled: 10/01/07
		Date Received: 10/02/07
	Client Contact: Harmony TomSun	Date Reported: 10/10/07
	Client P.O.:	Date Completed: 10/22/07

WorkOrder: 0710052

October 22, 2007

Dear Harmony:

Enclosed are:

1). the results of **6** analyzed samples from your **# 274761; Zimmerman project,**

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

AEI 0710052

McCAMPBELL ANALYTICAL INC.
1534 Willow Pass Road
Pittsburg, CA 94565
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

EDF Required? ☐ Yes ☒ No

Report To: Harmony TomSun Bill To: same P.O. #
Company: AEI Consultants
2500 Camino Diablo, Suite 200
Walnut Creek, CA 94597 E-Mail: htomsun@aeiconsultants.com
Tele: (925) 944-2899 Fax: (925) 944-2895
Project #: 274761 Project Name: Zimmerman
Project Location: 3442 Adeline St., Oakland, CA 94608
Sampler Signature: [signature]

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other
SB-1-4	Oakland	10/1/07	11:05	1	Liner		X				X			
SB-1-7.5			11:10											
SB-1-11.5			11:15											
SB-1-15.5			11:20											
SB-2-3.5			10:20											
SB-2-7.5			10:25											
SB-2-11.			10:30											
SB-2-15.5			10:35											
SB-3-3.5			2:05											
SB-3-7.5			2:10											
SB-3-11.5			2:15											
SB-3-15.5			2:20											
SB-4-3.5			11:50											
SB-4-7.5			11:55											

Analysis Request / Other / Comments

SAMPLE ID	BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015) – ~~Multi-range~~ w/ Silica gel	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015) w/ Silica Gel	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	~~PCT~~ 6 MBTEX added on 10/15/07 per FAX.	Other: HOLD	Other	Other: 5 Fuel Oxys 8260 / MTBE TAME	Other	Comments: TBA DIPE ETBE
SB-1-4	X															X				HOLD
SB-1-7.5	X	X																		
SB-1-11.5	X	X																X		HOLD
SB-1-15.5	X															X				
SB-2-3.5	X															X				
SB-2-7.5	X	X																		
SB-2-11.	X	X																X		
SB-2-15.5																X				
SB-3-3.5																X				
SB-3-7.5	X	X																		
SB-3-11.5	X	X																X		
SB-3-15.5																X				
SB-4-3.5	X															X				
SB-4-7.5	X	X																		

Relinquished By:	Date:	Time:	Received By:
[signature]	10/2/07	11:22	[signature]

ICE/t° 15.0
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB ____

	VOAS	O&G	METALS	OTHER
PRESERVATION				

APPROPRIATE CONTAINERS ✓
PERSERVED IN LAB ____

AEI 0710052

McCAMPBELL ANALYTICAL INC.
1534 Willow Pass Road
Pittsburg, CA 94565
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

EDF Required? ☐ Yes ☒ No

Report To: Harmony TomSun **Bill To:** same **P.O. #**
Company: AEI Consultants
2500 Camino Diablo, Suite 200
Walnut Creek, CA 94597 **E-Mail:** htomsun@aeiconsultants.com
Tele: (925) 944-2899 **Fax:** (925) 944-2895
Project #: 274761 **Project Name:** Zimmerman
Project Location: 3442 Adeline St., Oakland, CA 94608
Sampler Signature: [signature]

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015) ~~Multi-range~~ w/ Silica	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015) w/ Silica Gel	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	~~Ret~~ G-mbtex Added on 10/15/07 per FAX.	Other: HOLD	Other	Other: 5 fuel oxys 8260/MTBE, TAME, TBA, DIPE, ETBE	Other	Comments
SB-4-11.5	Oakland	10/1/07	12:00	1	Liner		X				X				X	X																X		
SB-4-15.5			12:05												X															X				
SB-5-3.5			1:30												X															X				
SB-5-7.5			1:35												X	X																		
SB-5-11.5			1:40												X	X																X		
SB-5-15.5			1:45												X															X				
SB-6-3.5			3:00																											X				
SB-6-7.5			3:05												X	X																		
SB-6-11.5			3:10												X	X																X		
SB-6-15			3:15																											X				
+ SB-1-W			3:30	4	VOA/A	X									X	X																X		
+ SB-2-W			3:15	4	VOA/A										X	X																X		
+ SB-4-W			3:40	4	VOA/A										X	X																X		

Relinquished By:	Date:	Time:	Received By:
[signature]	10/2/07	1122	[signature]
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 15.0
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB ____

	VOAS	O&G	METALS	OTHER
PRESERVATION				

APPROPRIATE CONTAINERS ✓
PERSERVED IN LAB ____

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 071005 A **ClientID: AEL**

☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty

Report to:
Harmony TomSun
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597

Email: htomsun@aeiconsultants.com
TEL: (925) 283-6000 FAX: (925) 944-2895
ProjectNo: # 274761; Zimmerman
PO:

Bill to:
Denise Mockel
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
dmockel@aeiconsultants.com

Requested TAT: 5 days
Date Received: **10/02/2007**
Date Add-On: **10/15/2007**
Date Printed: **10/15/2007**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0710052-001	SB-1-4	Soil	10/1/2007	☐	A											
0710052-004	SB-1-15.5	Soil	10/1/2007	☐	A											
0710052-013	SB-4-3.5	Soil	10/1/2007	☐	A											
0710052-016	SB-4-15.5	Soil	10/1/2007	☐	A											
0710052-017	SB-5-3.5	Soil	10/1/2007 1:30:00	☐	A											
0710052-020	SB-5-15.5	Soil	10/1/2007 1:45:00	☐	A											

Test Legend:

1	G-MBTEX_S	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Kimberly Burks

Comments: Email Jeremy @ jasmith@aeiconsultants.com / ADDED G-MBTEX ON 10/15/07

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

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Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: # 274761; Zimmerman	Date Sampled: 10/01/07
2500 Camino Diablo, Ste. #200		Date Received: 10/02/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 10/15/07
	Client P.O.:	Date Analyzed 10/16/07-10/18/07

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method SW5030B Analytical methods SW8021B/8015Cm Work Order: 0710052

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	SB-1-4	S	2.9,a	ND	0.016	0.0079	ND	0.0094	1	94
004A	SB-1-15.5	S	ND	ND	ND	ND	ND	ND	1	85
013A	SB-4-3.5	S	1.2,g	ND	ND	ND	ND	ND	1	88
016A	SB-4-15.5	S	ND	ND	ND	ND	ND	ND	1	92
017A	SB-5-3.5	S	ND	ND	ND	ND	ND	ND	1	90
020A	SB-5-15.5	S	ND	ND	0.017	ND	ND	ND	1	74

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA	NA	NA	NA	NA	1	ug/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high organic / MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) value derived using a client specified carbon range; o) results are reported on a dry weight basis; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder: 0710052

EPA Method SW8021B/8015Cm	Extraction SW5030B	BatchID: 31341	Spiked Sample ID: 0710502-019A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	0.60	113	101	11.5	106	107	0.997	70 - 130	30	70 - 130	30
MTBE	ND	0.10	81	73.1	10.3	81.2	79.5	2.01	70 - 130	30	70 - 130	30
Benzene	ND	0.10	92.2	90.5	1.84	96.3	97.4	1.16	70 - 130	30	70 - 130	30
Toluene	ND	0.10	90.6	87	3.88	94.1	95.4	1.34	70 - 130	30	70 - 130	30
Ethylbenzene	ND	0.10	96.1	97	1.01	101	103	1.72	70 - 130	30	70 - 130	30
Xylenes	ND	0.30	91.3	91.3	0	96	96.3	0.347	70 - 130	30	70 - 130	30
%SS:	85	0.10	77	78	0.685	81	82	1.44	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 31341 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710052-001A	10/01/07 11:05 AM	10/15/07	10/18/07 6:05 PM	0710052-004A	10/01/07 11:20 AM	10/15/07	10/17/07 8:30 PM
0710052-013A	10/01/07 11:50 AM	10/15/07	10/17/07 9:37 PM	0710052-016A	10/01/07 12:05 PM	10/15/07	10/16/07 3:30 PM
0710052-017A	10/01/07 1:30 AM	10/15/07	10/16/07 4:04 PM	0710052-020A	10/01/07 1:45 AM	10/15/07	10/18/07 12:57 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

DHS ELAP Certification N° 1644

QA/QC Officer

McCampbell Analytical, Inc.
"When Quality Counts"

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: # 274761; Zimmerman	Date Sampled: 10/04/07
		Date Received: 10/04/07
	Client Contact: Harmony TomSun	Date Reported: 10/15/07
	Client P.O.:	Date Completed: 10/15/07

WorkOrder: 0710206

October 15, 2007

Dear Harmony:

Enclosed are:

1). the results of **3** analyzed samples from your **# 274761; Zimmerman project,**

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

AEL 07102206

McCAMPBELL ANALYTICAL INC.

1534 Willow Pass Road
Pittsburg, CA 94565
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ 5 DAY

EDF Required? ☐ Yes ☐ No

Report To: Harmony TomSun **Bill To:** same **P.O. #**

Company: AEI Consultants
2500 Camino Diablo, Suite 200
Walnut Creek, CA 94597 **E-Mail:** htomsun@aeiconsultants.com

Tele: (925) 944-2899 **Fax:** (925) 944-2895

Project #: 274761 **Project Name:** Zimmerman

Project Location: 3442 Adeline St., Oakland, CA 94608

Sampler Signature:

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	Soil	Air	Sludge	Other	METHOD PRESERVED Ice	HCl	HNO_3	Other
SB-6-W	Not Enough	10/4/07	3:45	1	VOA	X					X	X		
SB-8-W			3:45	2	VOA	X					X	X		
SB-11-W			2:50	3	VOA	X					X	X		

Analysis Request

BTEX & TPH as Gas (602/8020 + 8015)	TPH as Diesel (8015) w/ Silica Gel	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015) w/ Silica Gel	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI
X	X													
X	X													
X	X													

Other

5 fuel oxys 8260 msbs	TAME/TBA/DIPE ETBE		
X			
X			
X			

Comments

w/ low water volumes
Analyze as much as possible w/ TPHd as lowest priority

HOLD

HOLD

not enough sample to analyze

Relinquished By:	Date:	Time:	Received By:
	10/4/07	6:30	Envirotech T.L.
Envirotech SR	10/4	1823	
	10/4/07	1936	

ICE/t° 5.6
GOOD CONDITION ✓
HEAD SPACE ABSENT
DECHLORINATED IN LAB
PRESERVED IN LAB

	VOAS	O&G	METALS	OTHER
PRESERVATION				
APPROPRIATE				
CONTAINERS				

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0710206 **ClientID: AEL**

☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty

Report to:
Harmony TomSun
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
Email: htomsun@aeiconsultants.com
TEL: (925) 944-2899 FAX: (925) 944-2895
ProjectNo: # 274761; Zimmerman
PO:

Bill to:
Denise Mockel
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
dmockel@aeiconsultants.com

Requested TAT: 5 days

Date Received: **10/04/2007**
Date Printed: **10/05/2007**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0710206-001	SB-6-W	Water	10/4/2007 3:45:00	☐	C	A	A									
0710206-002	SB-8-W	Water	10/4/2007 3:45:00	☐	C	A		B								
0710206-003	SB-11-W	Water	10/4/2007 2:50:00	☐	C	A		B								

Test Legend:

1	5-OXYS_W	2	G-MBTEX_W	3	PREDF REPORT	4	TPH(D)WSG_W	5	
6		7		8		9		10	
11		12							

Prepared by: Kimberly Burks

Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

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"When Quality Counts"

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **10/4/2007 8:40:06 PM**

Project Name: **# 274761; Zimmerman**

Checklist completed and reviewed by: Kimberly Burks

WorkOrder N°: **0710206** Matrix Water

Carrier: Michael Hernandez (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 5.6°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
TTLC Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑

Client contacted: Date contacted: Contacted by:

Comments: Not enough sample to analyze SB-8-W for TPHd w/SG

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: # 274761; Zimmerman	Date Sampled: 10/04/07
2500 Camino Diablo, Ste. #200		Date Received: 10/04/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 10/13/07
	Client P.O.:	Date Analyzed 10/13/07

Oxygenated Volatile Organics by P&T and GC/MS*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0710206

Lab ID	0710206-001C	0710206-002C	0710206-003C		Reporting Limit for DF =1	
Client ID	SB-6-W	SB-8-W	SB-11-W			
Matrix	W	W	W			
DF	1	1	50		S	W
Compound	**Concentration**				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND	ND	ND<25		NA	0.5
t-Butyl alcohol (TBA)	18	12	840		NA	5.0
Diisopropyl ether (DIPE)	ND	ND	ND<25		NA	0.5
Ethyl tert-butyl ether (ETBE)	ND	ND	ND<25		NA	0.5
Methyl-t-butyl ether (MTBE)	2.0	ND	ND<25		NA	0.5
Surrogate Recoveries (%)						
%SS1:	119	100	104			
Comments						

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

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AEI Consultants	Client Project ID: # 274761; Zimmerman	Date Sampled: 10/04/07
2500 Camino Diablo, Ste. #200		Date Received: 10/04/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 10/08/07-10/09/07
	Client P.O.:	Date Analyzed 10/08/07-10/09/07

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX*

Extraction method SW5030B Analytical methods SW8021B/8015Cm Work Order: 0710206

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	SB-6-W	W	440,a,m	---	17	ND	0.99	2.2	1	104
002A	SB-8-W	W	6700,a	---	110	6.3	160	140	5	109
003A	SB-11-W	W	83,000,a	---	10,000	640	2700	7900	100	115

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: # 274761; Zimmerman	Date Sampled: 10/04/07
2500 Camino Diablo, Ste. #200		Date Received: 10/04/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 10/04/07-10/16/07
	Client P.O.:	Date Analyzed 10/09/07

Diesel Range (C10-C23) Extractable Hydrocarbons with Silica Gel Clean-Up*

Extraction method: SW3510C/3630C Analytical methods: SW8015C Work Order: 0710206

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0710206-002B	SB-8-W	W	1600,d	1	103
0710206-003B	SB-11-W	W	4300,d	1	112

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50 µg/L
	S	NA NA

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract/matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder 0710206

EPA Method SW8015C **Extraction SW3510C/3630C** **BatchID: 31013** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(d)	N/A	1000	N/A	N/A	N/A	106	104	1.95	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	116	116	0	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 31013 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710206-002B	10/04/07 3:45 AM		10/09/07 1:49 PM	0710206-003B	10/04/07 2:50 AM	10/04/07	10/09/07 2:58 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder 0710206

EPA Method SW8260B	Extraction SW5030B	BatchID: 31079	Spiked Sample ID: 0710127-001B

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	10	92.9	91.2	1.84	95.1	90.6	4.77	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	84.2	91.6	8.45	89.6	89	0.706	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	101	99.1	2.12	103	97.5	5.45	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	92.9	89.4	3.84	94.4	88	7.09	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	103	97.6	5.77	102	94.6	7.57	70 - 130	30	70 - 130	30
%SS1:	100	10	100	93	7.30	95	90	5.44	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 31079 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710206-001C	10/04/07 3:45 AM	10/13/07	10/13/07 4:46 AM	0710206-002C	10/04/07 3:45 AM	10/13/07	10/13/07 5:40 AM
0710206-003C	10/04/07 2:50 AM	10/13/07	10/13/07 6:34 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder 0710206

EPA Method SW8021B/8015Cm Extraction SW5030B BatchID: 31135 Spiked Sample ID: 0710203-011A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	81.4	90.5	10.6	106	102	4.21	70 - 130	30	70 - 130	30
MTBE	ND	10	96.3	104	7.90	111	117	4.52	70 - 130	30	70 - 130	30
Benzene	ND	10	85.6	98.2	13.7	105	105	0	70 - 130	30	70 - 130	30
Toluene	ND	10	78.5	88.7	12.1	103	98	4.90	70 - 130	30	70 - 130	30
Ethylbenzene	ND	10	86.5	95.3	9.76	103	103	0	70 - 130	30	70 - 130	30
Xylenes	ND	30	81.7	92.3	12.3	96.7	96.7	0	70 - 130	30	70 - 130	30
%SS:	128	10	102	103	0.304	105	104	0.465	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 31135 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710206-001A	10/04/07 3:45 AM	10/08/07	10/08/07 2:29 PM	0710206-002A	10/04/07 3:45 AM	10/09/07	10/09/07 9:01 PM
0710206-003A	10/04/07 2:50 AM	10/08/07	10/08/07 3:30 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

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Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #274761; Zimmerman	Date Sampled: 10/03/07
		Date Received: 10/04/07
	Client Contact: Harmony TomSun	Date Reported: 10/16/07
	Client P.O.:	Date Completed: 10/16/07

WorkOrder: 0710218

October 16, 2007

Dear Harmony:

Enclosed are:

1). the results of **15** analyzed samples from your **#274761; Zimmerman project,**

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

0710218

McCAMPBELL ANALYTICAL INC.

1534 Willow Pass Road
Pittsburg, CA 94565
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

EDF Required? ☐ Yes ☒ No

Report To: Harmony TomSun	**Bill To:** same	**P.O. #**
Company: AEI Consultants		
2500 Camino Diablo, Suite 200		
Walnut Creek, CA 94597	**E-Mail:** htomsun@aeiconsultants.com	
Tele: (925) 944-2899	**Fax:** (925) 944-2895	
Project #: 274761	**Project Name:** Zimmerman	
Project Location: 3442 Adeline St., Oakland, CA 94608		
Sampler Signature:		

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	Soil	Air	Sludge	Other	METHOD PRESERVED Ice	HCl	HNO_3	Other
SB-7-3.5	Oakland	10/3/07	1050	1	Liner		X				X			
SB-7-7.5			1100											
SB-7-11.5			1105											
SB-7-15.5			1110											
SB-8-3.5			1245											
SB-8-7.5			1250											
SB-8-11.5			1:00											
SB-8-15.5			1:10											
SB-9-4			925											
SB-9-7.5			930											
SB-9-9			935											
SB-9-11.5			940											
SB-9-15.5			945											
SB-10-3.5			1155											

Analysis Request

BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015) ~~with silica gel~~ w/silica gel	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015) w/ Silica Gel	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI
X	X													
X	X													
X	X													
X	X													
X	X													
X	X													
X	X													

Other

HOLD	5 fuel oxys 8260 / MTBE TAME TBA	
X		HOLD
	X	HOLD
X		
X		
	X	
X		
X		
X		
	X	
X		
X		

Comments: DIPE EtBE

Relinquished By:	Date:	Time:	Received By:
	10/4/07	18'17	Envirotech T.L.
Envirotech SR.	10/4/07	1820	
	10/4/07	1936	

ICE/t° 2.8
GOOD CONDITION YES
HEAD SPACE ABSENT ____
DECHLORINATED IN LAB ____ PERSERVED IN LAB ____

PRESERVATION APPROPRIATE	VOAS	O&G	METALS	OTHER
CONTAINERS YES				

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CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

EDF Required? ☐ Yes ☒ No

Report To: Harmony TomSun Bill To: same P.O. #

Company: AEI Consultants

2500 Camino Diablo, Suite 200

Walnut Creek, CA 94597 E-Mail: htomsun@aeiconsultants.com

Tele: (925) 944-2899 Fax: (925) 944-2895

Project #: 274761 Project Name: Zimmerman

Project Location: 3442 Adeline St., Oakland, CA 94608

Sampler Signature:

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015) ~~Multirange~~ w/silica gel	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015) w/ Silica Gel	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other: HOLD	Other: 5 Oxys 8260/MTBE TAME TBA DIPE ETBE	Comments
SB-10 - 7.5	Oakland	10/3/07	1200	1	Liner		X				X				X	X																HOLD
SB-10 - 11.5	"	"	1205	"	"		"				"				X	X															X	
SB-10 - 15.5	"	"	1210	"	"		"				"					X														X		HOLD
SB-11 - 3.5	"	"	300	"	"		"				"																			X		
SB-11 - 7.5	"	"	305	"	"		"				"																			X		
SB-11 - 11.5	"	"	310	"	"		"				"				X	X																
SB-11-15.5	"	"	315	1	1		1				1				X	X															X	
SB-3-W	"	"		4	~~VOAs~~	X					X				X	X															X	
SB-5-W	"	"		"	"	"					"				X	X															X	
SB-7-W	"	"		"	"	"					"				X	X															X	
SB-9-W	"	"		"	"	"					"				X	X															X	
SB-10-W	"	"		"	"	"					"				X	X															X	

Relinquished By:	Date:	Time:	Received By:
	10/4/07	18:17	Envirotech T.L.
Envirotech SR.	10/4/07	1820	
	10/4/07	1936	

ICE/t° 2-8 VOAS | O&G | METALS | OTHER

GOOD CONDITION YES PRESERVATION

HEAD SPACE ABSENT YES APPROPRIATE

DECHLORINATED IN LAB ____ CONTAINERS YES

PERSERVED IN LAB ____

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0710218 **ClientID: AEL**

☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty

Report to:
Harmony TomSun
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
Email: htomsun@aeiconsultants.com
TEL: (925) 944-2899 FAX: (925) 944-2895
ProjectNo: #274761; Zimmerman
PO:

Bill to:
Denise Mockel
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
dmockel@aeiconsultants.com

Requested TAT: 5 days

Date Received: **10/04/2007**
Date Printed: **10/05/2007**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0710218-002	SB-7-7.5	Soil	10/3/07 11:00:00	☐			A		A							
0710218-003	SB-7-11.5	Soil	10/3/07 11:05:00	☐	A		A		A							
0710218-006	SB-8-7.5	Soil	10/3/07 12:50:00	☐			A		A							
0710218-007	SB-8-11.5	Soil	10/3/07 1:00:00	☐	A		A		A							
0710218-009	SB-9-4	Soil	10/3/07 9:25:00	☐			A		A							
0710218-012	SB-9-11.5	Soil	10/3/07 9:40:00	☐	A		A		A							
0710218-015	SB-10-7.5	Soil	10/3/07 12:00:00	☐			A		A							
0710218-016	SB-10-11.5	Soil	10/3/07 12:05:00	☐	A		A		A							
0710218-020	SB-11-11.5	Soil	10/3/07 3:10:00	☐			A		A							
0710218-021	SB-11-15.5	Soil	10/3/07 3:15:00	☐			A		A							
0710218-022	SB-3-W	Water	10/3/07	☐		B		A		C						
0710218-023	SB-5-W	Water	10/3/07	☐		B		A		C						
0710218-024	SB-7-W	Water	10/3/07	☐		B		A		C						
0710218-025	SB-9-W	Water	10/3/07	☐		B		A		C						
0710218-026	SB-10-W	Water	10/3/07	☐		B		A		C						

Test Legend:

1	5-OXYS_S	2	5-OXYS_W	3	G-MBTEX_S	4	G-MBTEX_W	5	TPH(D)WSG_S
6	TPH(D)WSG_W	7		8		9		10	
11		12							

Prepared by: Rosa Venegas

Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

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Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **10/4/07 9:37:48 PM**

Project Name: **#274761; Zimmerman**

Checklist completed and reviewed by: Rosa Venegas

WorkOrder N°: **0710218** Matrix Soil/Water

Carrier: EnviroTech

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 2.8°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
TTLC Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑

Client contacted: Date contacted: Contacted by:

Comments:

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AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 10/03/07
2500 Camino Diablo, Ste. #200		Date Received: 10/04/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 10/04/07
	Client P.O.:	Date Analyzed 10/12/07

Oxygenated Volatile Organics by P&T and GC/MS*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0710218

Lab ID	0710218-003A	0710218-007A	0710218-012A	0710218-016A	Reporting Limit for DF =1	
Client ID	SB-7-11.5	SB-8-11.5	SB-9-11.5	SB-10-11.5		
Matrix	S	S	S	S		
DF	4	2	1	20	S	W
Compound	**Concentration**				mg/kg	ug/L
tert-Amyl methyl ether (TAME)	ND<0.020	ND<0.010	ND	ND<0.10	0.005	NA
t-Butyl alcohol (TBA)	ND<0.20	ND<0.10	ND	ND<1.0	0.05	NA
Diisopropyl ether (DIPE)	ND<0.020	ND<0.010	ND	ND<0.10	0.005	NA
Ethyl tert-butyl ether (ETBE)	ND<0.020	ND<0.010	ND	ND<0.10	0.005	NA
Methyl-t-butyl ether (MTBE)	ND<0.020	ND<0.010	ND	ND<0.10	0.005	NA
Surrogate Recoveries (%)						
%SS1:	91	90	94	89		
Comments	j	j		j		

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

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AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 10/03/07
2500 Camino Diablo, Ste. #200		Date Received: 10/04/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 10/13/07
	Client P.O.:	Date Analyzed 10/13/07

Oxygenated Volatile Organics by P&T and GC/MS*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0710218

Lab ID	0710218-022B	0710218-023B	0710218-024B	0710218-025B	Reporting Limit for DF =1	
Client ID	SB-3-W	SB-5-W	SB-7-W	SB-9-W		
Matrix	W	W	W	W		
DF	1	10	1	3.3	S	W
Compound	**Concentration**				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND	ND<5.0	ND	ND<1.7	NA	0.5
t-Butyl alcohol (TBA)	ND	120	ND	37	NA	5.0
Diisopropyl ether (DIPE)	ND	ND<5.0	ND	ND<1.7	NA	0.5
Ethyl tert-butyl ether (ETBE)	ND	ND<5.0	ND	ND<1.7	NA	0.5
Methyl-t-butyl ether (MTBE)	ND	ND<5.0	6.1	ND<1.7	NA	0.5
Surrogate Recoveries (%)						
%SS1:	111	103	101	108		
Comments						

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

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AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 10/03/07
2500 Camino Diablo, Ste. #200		Date Received: 10/04/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 10/13/07
	Client P.O.:	Date Analyzed 10/13/07

Oxygenated Volatile Organics by P&T and GC/MS*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0710218

					Reporting Limit for DF =1	
Lab ID	0710218-026B					
Client ID	SB-10-W					
Matrix	W					
DF	20				S	W
Compound	**Concentration**				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND<10				NA	0.5
t-Butyl alcohol (TBA)	510				NA	5.0
Diisopropyl ether (DIPE)	11				NA	0.5
Ethyl tert-butyl ether (ETBE)	ND<10				NA	0.5
Methyl-t-butyl ether (MTBE)	ND<10				NA	0.5
Surrogate Recoveries (%)						
%SS1:	104					
Comments						

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

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AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 10/03/07
2500 Camino Diablo, Ste. #200		Date Received: 10/04/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 10/04/07
	Client P.O.:	Date Analyzed 10/06/07-10/15/07

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method SW5030B Analytical methods SW8021B/8015Cm Work Order: 0710218

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
002A	SB-7-7.5	S	310,g,m	ND<1.0	ND<0.10	0.48	0.28	0.38	20	99
003A	SB-7-11.5	S	120,g,m	ND<0.50	0.21	0.069	0.39	0.22	10	97
006A	SB-8-7.5	S	53,g,m	ND<0.10	ND<0.010	0.030	0.034	0.13	2	81
007A	SB-8-11.5	S	99,a,m	ND<0.17	0.24	0.070	0.66	0.46	3.3	126
009A	SB-9-4	S	ND	ND	ND	ND	ND	ND	1	82
012A	SB-9-11.5	S	ND	ND	ND	ND	ND	ND	1	86
015A	SB-10-7.5	S	35,a	ND<0.10	0.72	0.024	0.47	0.079	2	86
016A	SB-10-11.5	S	750,a	ND<10	6.9	1.6	13	33	50	---#
020A	SB-11-11.5	S	39,a	ND<0.3	0.68	0.086	0.76	2.3	3.3	87
021A	SB-11-15.5	S	41,a	0.14	1.1	0.071	0.55	1.5	1	108
Reporting Limit for DF =1; ND means not detected at or above the reporting limit		W	NA	NA	NA	NA	NA	NA	1	ug/L
		S	1.0	0.05	0.005	0.005	0.005	0.005	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high organic / MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) value derived using a client specified carbon range; o) results are reported on a dry weight basis; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 10/03/07
2500 Camino Diablo, Ste. #200		Date Received: 10/04/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 10/08/07-10/09/07
	Client P.O.:	Date Analyzed 10/08/07-10/09/07

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method SW5030B Analytical methods SW8021B/8015Cm Work Order: 0710218

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
022A	SB-3-W	W	84,a	ND	2.4	ND	4.2	11	1	108
023A	SB-5-W	W	22,000,a	ND<250	1900	86	1200	2100	20	111
024A	SB-7-W	W	2000,a	ND<25	30	5.1	56	82	5	113
025A	SB-9-W	W	11,000,a	ND<50	440	14	720	1000	10	114
026A	SB-10-W	W	17,000,a	ND<100	3800	55	420	830	20	105

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.

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AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 10/03/07
2500 Camino Diablo, Ste. #200		Date Received: 10/04/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 10/04/07
	Client P.O.:	Date Analyzed 10/10/07-10/12/07

Diesel Range (C10-C23) Extractable Hydrocarbons with Silica Gel Clean-Up*

Extraction method SW3550C/3630C Analytical methods SW8015C Work Order: 0710218

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0710218-002A	SB-7-7.5	S	90,n	1	90
0710218-003A	SB-7-11.5	S	37,d	1	106
0710218-006A	SB-8-7.5	S	23,d	1	119
0710218-007A	SB-8-11.5	S	13,d	1	84
0710218-009A	SB-9-4	S	ND	1	88
0710218-012A	SB-9-11.5	S	ND	1	88
0710218-015A	SB-10-7.5	S	5.1,d	1	91
0710218-016A	SB-10-11.5	S	74,d	1	108
0710218-020A	SB-11-11.5	S	13,d	1	118
0710218-021A	SB-11-15.5	S	10,d	1	119

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA
	S	1.0	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit; r) results are reported on a dry weight basis

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AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 10/03/07
2500 Camino Diablo, Ste. #200		Date Received: 10/04/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 10/04/07
	Client P.O.:	Date Analyzed 10/09/07-10/10/07

Diesel Range (C10-C23) Extractable Hydrocarbons with Silica Gel Clean-Up*

Extraction method SW3510C/3630C Analytical methods SW8015C Work Order: 0710218

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0710218-022C	SB-3-W	W	ND	1	118
0710218-023C	SB-5-W	W	7400,d	2	91
0710218-024C	SB-7-W	W	1000,d	1	119
0710218-025C	SB-9-W	W	5700,d,b,g	1	82
0710218-026C	SB-10-W	W	1700,d,b,g	1	82

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	NA	NA

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract/matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit; p) see attached narrative.

DHS ELAP Certification N° 1644

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder 0710218

EPA Method SW8260B	Extraction SW5030B	BatchID: 31144	Spiked Sample ID: 0710278-001A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	0.050	92	91	1.11	94.4	88.5	6.55	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	0.25	95.9	94	1.99	99	92.6	6.62	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	0.050	103	101	2.02	105	98.6	6.49	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	0.050	90.9	89.2	1.84	94.3	86.8	8.32	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	0.050	101	96.4	4.21	105	91.4	13.4	70 - 130	30	70 - 130	30
%SS1:	105	0.050	95	91	4.31	98	88	10.9	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 31144 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710218-003A	10/03/07 11:05 AM	10/04/07	10/12/07 7:17 AM	0710218-007A	10/03/07 1:00 PM	10/04/07	10/12/07 8:02 AM
0710218-012A	10/03/07 9:40 AM	10/04/07	10/12/07 1:26 PM	0710218-016A	10/03/07 12:05 PM	10/04/07	10/12/07 2:12 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder 0710218

EPA Method SW8260B **Extraction SW5030B** **BatchID: 31137** **Spiked Sample ID: 0710219-011A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	10	92.3	91.8	0.511	85.9	95.6	10.7	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	84.2	84.6	0.447	87.4	93.7	6.95	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	101	101	0	92.5	105	12.3	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	91.7	90.2	1.60	82.2	93.3	12.6	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	99	96.6	2.46	87.8	100	13.4	70 - 130	30	70 - 130	30
%SS1:	99	10	103	101	1.46	85	95	11.7	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 31137 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710218-022B	10/03/07	10/13/07	10/13/07 10:43 AM	0710218-023B	10/03/07	10/13/07	10/13/07 11:31 AM
0710218-024B	10/03/07	10/13/07	10/13/07 12:22 PM	0710218-025B	10/03/07	10/13/07	10/13/07 1:10 PM
0710218-026B	10/03/07	10/13/07	10/13/07 1:58 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder 0710218

EPA Method SW8021B/8015Cm	Extraction SW5030B	BatchID: 31129	Spiked Sample ID: 0710189-010A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	0.60	94.9	96.2	1.34	84.3	82.4	2.30	70 - 130	30	70 - 130	30
MTBE	ND	0.10	75.6	77.5	2.46	104	97.3	6.63	70 - 130	30	70 - 130	30
Benzene	ND	0.10	104	102	1.84	106	102	3.84	70 - 130	30	70 - 130	30
Toluene	ND	0.10	98.9	97.1	1.84	114	112	1.50	70 - 130	30	70 - 130	30
Ethylbenzene	ND	0.10	108	105	2.23	102	109	7.21	70 - 130	30	70 - 130	30
Xylenes	ND	0.30	123	120	2.74	103	113	9.88	70 - 130	30	70 - 130	30
%SS:	94	0.10	102	94	8.14	102	101	0.570	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 31129 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710218-002A	10/03/07 11:00 AM	10/04/07	10/06/07 5:08 PM	0710218-003A	10/03/07 11:05 AM	10/04/07	10/06/07 5:42 PM
0710218-006A	10/03/07 12:50 PM	10/04/07	10/06/07 6:16 PM	0710218-007A	10/03/07 1:00 PM	10/04/07	10/06/07 6:50 PM
0710218-009A	10/03/07 9:25 AM	10/04/07	10/06/07 12:32 AM	0710218-012A	10/03/07 9:40 AM	10/04/07	10/15/07 12:13 PM
0710218-015A	10/03/07 12:00 PM	10/04/07	10/06/07 7:57 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

DHS ELAP Certification N° 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder 0710218

EPA Method SW8021B/8015Cm	Extraction SW5030B	BatchID: 31143	Spiked Sample ID: 0709726-022A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	0.60	97.6	98.3	0.692	98.1	96.2	1.97	70 - 130	30	70 - 130	30
MTBE	ND	0.10	83.7	83.1	0.728	77.7	79.8	2.63	70 - 130	30	70 - 130	30
Benzene	ND	0.10	108	102	5.12	102	101	0.304	70 - 130	30	70 - 130	30
Toluene	ND	0.10	107	102	4.97	101	101	0	70 - 130	30	70 - 130	30
Ethylbenzene	ND	0.10	111	106	4.94	105	106	0.297	70 - 130	30	70 - 130	30
Xylenes	ND	0.30	123	120	2.74	120	120	0	70 - 130	30	70 - 130	30
%SS:	86	0.10	98	102	3.71	104	101	2.43	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 31143 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710218-016A	10/03/07 12:05 PM	10/04/07	10/06/07 9:03 PM	0710218-020A	10/03/07 3:10 PM	10/04/07	10/06/07 10:09 PM
0710218-021A	10/03/07 3:15 PM	10/04/07	10/06/07 1:38 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder 0710218

EPA Method SW8021B/8015Cm Extraction SW5030B BatchID: 31135 Spiked Sample ID: 0710203-011A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	81.4	90.5	10.6	106	102	4.21	70 - 130	30	70 - 130	30
MTBE	ND	10	96.3	104	7.90	111	117	4.52	70 - 130	30	70 - 130	30
Benzene	ND	10	85.6	98.2	13.7	105	105	0	70 - 130	30	70 - 130	30
Toluene	ND	10	78.5	88.7	12.1	103	98	4.90	70 - 130	30	70 - 130	30
Ethylbenzene	ND	10	86.5	95.3	9.76	103	103	0	70 - 130	30	70 - 130	30
Xylenes	ND	30	81.7	92.3	12.3	96.7	96.7	0	70 - 130	30	70 - 130	30
%SS:	128	10	102	103	0.304	105	104	0.465	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 31135 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710218-022A	10/03/07	10/08/07	10/08/07 12:58 PM	0710218-023A	10/03/07	10/09/07	10/09/07 12:51 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

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QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder 0710218

EPA Method SW8015C **Extraction SW3510C/3630C** **BatchID: 31139** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(d)	N/A	1000	N/A	N/A	N/A	111	110	0.288	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	117	117	0	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 31139 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710218-022C	10/03/07	10/04/07	10/09/07 9:06 PM	0710218-023C	10/03/07	10/04/07	10/10/07 10:56 PM
0710218-024C	10/03/07	10/04/07	10/09/07 11:20 PM	0710218-025C	10/03/07	10/04/07	10/10/07 2:15 PM
0710218-026C	10/03/07	10/04/07	10/10/07 3:22 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder 0710218

EPA Method SW8021B/8015Cm Extraction SW5030B BatchID: 31140 Spiked Sample ID: 0710210-013A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	103	86.9	17.4	106	108	2.05	70 - 130	30	70 - 130	30
MTBE	ND	10	103	93.1	10.2	87.4	102	15.1	70 - 130	30	70 - 130	30
Benzene	ND	10	99.9	89.5	11.0	101	101	0	70 - 130	30	70 - 130	30
Toluene	ND	10	96.1	87.8	9.11	101	101	0	70 - 130	30	70 - 130	30
Ethylbenzene	ND	10	97.9	91.3	7.01	106	107	0.750	70 - 130	30	70 - 130	30
Xylenes	ND	30	91.3	86.3	5.63	120	120	0	70 - 130	30	70 - 130	30
%SS:	109	10	105	103	1.35	93	91	1.76	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 31140 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710218-024A	10/03/07	10/09/07	10/09/07 3:05 PM	0710218-025A	10/03/07	10/09/07	10/09/07 4:13 PM
0710218-026A	10/03/07	10/09/07	10/09/07 5:20 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

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QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder 0710218

EPA Method SW8015C	Extraction SW3550C/3630C	BatchID: 31029	Spiked Sample ID: 0710061-002A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(d)	210	20	NR	NR	NR	129	123	4.13	70 - 130	30	70 - 130	30
%SS:	93	50	73	72	2.38	123	123	0	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 31029 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710218-002A	10/03/07 11:00 AM	10/04/07	10/11/07 8:16 PM	0710218-003A	10/03/07 11:05 AM	10/04/07	10/10/07 11:31 PM
0710218-006A	10/03/07 12:50 PM	10/04/07	10/11/07 12:38 AM	0710218-007A	10/03/07 1:00 PM	10/04/07	10/11/07 7:59 AM
0710218-009A	10/03/07 9:25 AM	10/04/07	10/11/07 9:26 PM	0710218-012A	10/03/07 9:40 AM	10/04/07	10/11/07 10:36 PM
0710218-015A	10/03/07 12:00 PM	10/04/07	10/12/07 2:06 AM	0710218-016A	10/03/07 12:05 PM	10/04/07	10/12/07 3:16 AM
0710218-020A	10/03/07 3:10 PM	10/04/07	10/10/07 9:17 PM	0710218-021A	10/03/07 3:15 PM	10/04/07	10/10/07 10:24 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #274761; Zimmerman	Date Sampled: 10/03/07
		Date Received: 10/04/07
	Client Contact: Harmony TomSun	Date Reported: 10/16/07
	Client P.O.:	Date Completed: 10/24/07

WorkOrder: 0710218

October 24, 2007

Dear Harmony:

Enclosed are:

1). the results of **1** analyzed sample from your **#274761; Zimmerman project,**

2). a QC report for the above sample

3). a copy of the chain of custody, and

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

McCAMPBELL ANALYTICAL INC.

1534 Willow Pass Road
Pittsburg, CA 94565
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

EDF Required? ☐ Yes ☒ No

Report To: Harmony TomSun Bill To: same P.O. #

Company: AEI Consultants

2500 Camino Diablo, Suite 200

Walnut Creek, CA 94597 E-Mail: htomsun@aeiconsultants.com

Tele: (925) 944-2899 Fax: (925) 944-2895

Project #: 274761 Project Name: Zimmerman

Project Location: 3442 Adeline St., Oakland, CA 94608

Sampler Signature:

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	Analysis Request: BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015) ~~Multirange~~ w/ Silica gel	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015) w/ Silica Gel	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other: HOLD	Other: 5 fuel oxys 8260/MTBE TAME TBA DIPE & EDB	Comments
SB-10 - 7.5	Oakland	10/3/07	1200	1	Liner		X				X				X	X																HOLD
SB-10 - 11.5			1205												X	X															X	
SB-10 - 15.5			1210												X															X		HOLD
SB-11 - 3.5			1300																											X		
SB-11 - 7.5			1305																											X		
SB-11 - 11.5			1310												X	X															•	
SB-11 - 15.5			1315												X	X															X	
SB-3-W				4	~~VOA~~	X					X				X	X															X	
SB-5-W															X	X															X	
SB-7-W															X	X															X	
SB-9-W															X	X															X	
SB-10-W															X	X															X	

Relinquished By:	Date:	Time:	Received By:
	10/4/07	18:17	Envirotech T.L.
Envirotech SR.	10/4/07	1820	
	10/4/07	1936	

ICE/t° 2-8 PRESERVATION VOAS | O&G | METALS | OTHER

GOOD CONDITION YES APPROPRIATE

HEAD SPACE ABSENT YES CONTAINERS YES

DECHLORINATED IN LAB ____ PERSERVED IN LAB ____

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 071021 A **ClientID: AEL**

☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty

Report to:
Harmony TomSun
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
Email: htomsun@aeiconsultants.com
TEL: (925) 283-6000 FAX: (925) 944-2895
ProjectNo: #274761; Zimmerman
PO:

Bill to:
Denise Mockel
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
dmockel@aeiconsultants.com

Requested TAT: 5 days
Date Received: **10/04/2007**
Date Add-On: **10/15/2007**
Date Printed: **10/15/2007**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below) 1	2	3	4	5	6	7	8	9	10	11	12
0710218-017	SB-10-15.5	Soil	10/03/07 12:10:00	☐	A											

Test Legend:

1	G-MBTEX_S	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Rosa Venegas

Comments: gmbtex added on 10/15/07 on a std tat per fax

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

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AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 10/03/07
2500 Camino Diablo, Ste. #200		Date Received: 10/04/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 10/15/07
	Client P.O.:	Date Analyzed: 10/16/07

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0710218

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
017A	SB-10-15.5	S	ND	ND	0.012	ND	ND	0.0052	1	78

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA	NA	NA	NA	NA	1	ug/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high organic / MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) value derived using a client specified carbon range; o) results are reported on a dry weight basis; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder: 0710218

EPA Method SW8021B/8015Cm	Extraction SW5030B	BatchID: 31341	Spiked Sample ID: 0710502-019A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	0.60	113	101	11.5	106	107	0.997	70 - 130	30	70 - 130	30
MTBE	ND	0.10	81	73.1	10.3	81.2	79.5	2.01	70 - 130	30	70 - 130	30
Benzene	ND	0.10	92.2	90.5	1.84	96.3	97.4	1.16	70 - 130	30	70 - 130	30
Toluene	ND	0.10	90.6	87	3.88	94.1	95.4	1.34	70 - 130	30	70 - 130	30
Ethylbenzene	ND	0.10	96.1	97	1.01	101	103	1.72	70 - 130	30	70 - 130	30
Xylenes	ND	0.30	91.3	91.3	0	96	96.3	0.347	70 - 130	30	70 - 130	30
%SS:	85	0.10	77	78	0.685	81	82	1.44	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 31341 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710218-017A	10/03/07 12:10 PM	10/15/07	10/16/07 5:45 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

McCampbell Analytical, Inc.
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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #274761; Zimmerman	Date Sampled: 10/03/07
		Date Received: 10/04/07
	Client Contact: Harmony TomSun	Date Reported: 10/15/07
	Client P.O.:	Date Completed: 10/15/07

WorkOrder: 0710225

October 15, 2007

Dear Harmony:

Enclosed are:

1). the results of **1** analyzed sample from your **#274761; Zimmerman project,**

2). a QC report for the above sample

3). a copy of the chain of custody, and

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

AEL 071025.

McCAMPBELL ANALYTICAL INC.

1534 Willow Pass Road
Pittsburg, CA 94565-1701
www.main@mccampbell.com
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

EDF Required? Coelt (Normal) No Write On (DW) No

Report To: Harmony Tonsan	Bill To: Same
Company: AEI Consultants	
	E-Mail: htonsun@aeiconsultants.com
Tele: (925) 944 2899	Fax: ( )
Project #: 274761	Project Name: Zimmerman
Project Location: Oakland	
Sampler Signature:	

Lab Use Only

Pressurized By	Date	Pressurization Gas	
		N2	He

Notes:

Field Sample ID (Location)	Collection Date	Collection Time	Canister SN#	Sampler Kit SN#	Analysis Requested	Indoor Air	Soil Gas	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
VB-3	10/3/07	Start 1040 End 11:00	4713	MAN316-670	TPHg TO3/MBTEX TO15		☒	-29	-5		

Relinquished By:	Date:	Time:	Received By:
	10/4/07	18:18	Envirotech T.L.
Enviro-Tech SR.	10/4/07	1820	
	10/4/07	1936	

Temp (°C) : _____ Work Order #: _____

Condition: _____

Custody Seals Intact?: Yes _____ No _____ None _____

Shipped Via: _____

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0710225 **ClientID: AEL**

☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty

Report to:
Harmony TomSun
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
Email: htomsun@aeiconsultants.com
TEL: (925) 283-6000 FAX: (925) 944-2895
ProjectNo: #274761; Zimmerman
PO:

Bill to:
Denise Mockel
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
dmockel@aeiconsultants.com

Requested TAT: 5 days

Date Received: **10/04/2007**
Date Printed: **10/09/2007**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0710225-001	VB-3	Air	10/03/07	☐	A	A										

Test Legend:

1	TO15(MBTEX)_SOILGAS	2	TO3_SOIL(UG/M3)	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Nickole White

Comments: Joanne no longer with AEI; invoices to dmockel@aeiconsultants.com

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

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Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 10/03/07
2500 Camino Diablo, Ste. #200		Date Received: 10/04/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 10/13/07
	Client P.O.:	Date Analyzed 10/13/07

MBTEX in nL/L*

Extraction Method: TO-15 Analytical Method: TO15 Work Order: 0710225

Lab ID	0710225-001A				Reporting Limit for DF =1	
Client ID	VB-3					
Matrix	Air					
Initial Pressure	11.67					
Final Pressure	23.24				S	A
Compound	**Concentration**				ug/kg	nL/L
Benzene	13				NA	2.0
Ethylbenzene	3.7				NA	2.0
Isopropyl Alcohol	ND				NA	10
Methyl-t-butyl ether (MTBE)	ND				NA	13
Toluene	11				NA	2.0
Xylenes	11				NA	6.0
Surrogate Recoveries (%)						
%SS1:	105					
%SS2:	97					
%SS3:	100					
Comments						

*vapor samples are reported in nL/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak; &) high/low surrogate due to matrix interference.

j) sample diluted due to high organic content.

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Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 10/03/07
2500 Camino Diablo, Ste. #200		Date Received: 10/04/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 10/13/07
	Client P.O.:	Date Analyzed: 10/13/07

MBTEX in µg/m³*

Extraction Method: TO-15 Analytical Method: TO15 Work Order: 0710225

					Reporting Limit for DF =1	
Lab ID	0710225-001A					
Client ID	VB-3					
Matrix	Air					
Initial Pressure	11.67					
Final Pressure	23.24				S	A
Compound	**Concentration**				ug/kg	µg/m³
Benzene	40				NA	6.5
Ethylbenzene	16				NA	8.8
Isopropyl Alcohol	ND				NA	25
Methyl-t-butyl ether (MTBE)	ND				NA	48
Toluene	42				NA	7.7
Xylenes	49				NA	27
Surrogate Recoveries (%)						
%SS1:	105					
%SS2:	97					
%SS3:	100					
Comments						

*vapor samples are reported in µg/m³.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak; &) high/low surrogate due to matrix interference.

j) sample diluted due to high organic content.

DHS ELAP Certification N° 1644

_____ Angela Rydelius, Lab Manager

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AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 10/03/07
2500 Camino Diablo, Ste. #200		Date Received: 10/04/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 10/15/07
	Client P.O.:	Date Analyzed 10/15/07

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline in µg/m³*

Extraction method TO3 Analytical methods TO3 Work Order: 0710225

Lab ID	Client ID	Matrix	Initial Pressure	Final Pressure	TPH(g)	DF	% SS
001A	VB-3	A	11.67	23.24	2500	1	N/A

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	A			1500	µg/m³
	S			NA	NA

*vapor samples are reported in µg/m³.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?) g) strongly aged gasoline or diesel range compounds are significant; j) sample diluted due to high organic content; k) this compound's reporting limit does not meet the ESL for residential soil gas; m) no recognizable pattern.j) sample diluted due to high organic content.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 10/03/07
2500 Camino Diablo, Ste. #200		Date Received: 10/04/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 10/15/07
	Client P.O.:	Date Analyzed 10/15/07

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline in nL/L*

Extraction method: TO3 Analytical methods: TO3 Work Order: 0710225

Lab ID	Client ID	Matrix	Initial Pressure	Final Pressure	TPH(g)	DF	% SS
001A	VB-3	A	11.67	23.24	840	1	N/A

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	A			500	nL/L
	S			NA	NA

*vapor samples are reported in nL/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

j) sample diluted due to high organic content.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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QC SUMMARY REPORT FOR TO-15

W.O. Sample Matrix: Air QC Matrix: Air WorkOrder: 0710225

EPA Method TO15	Extraction TO-15				BatchID: 31155			Spiked Sample ID: N/A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	nL/L	nL/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Benzene	N/A	25	N/A	N/A	N/A	91.3	90.7	0.655	N/A	N/A	70 - 130	30
Ethylbenzene	N/A	25	N/A	N/A	N/A	96.5	98.2	1.78	N/A	N/A	70 - 130	30
Isopropyl Alcohol	N/A	25	N/A	N/A	N/A	103	104	0.413	N/A	N/A	70 - 130	30
Methyl-t-butyl ether (MTBE)	N/A	25	N/A	N/A	N/A	99.3	102	2.98	N/A	N/A	70 - 130	30
Toluene	N/A	25	N/A	N/A	N/A	94.5	96.1	1.64	N/A	N/A	70 - 130	30
Xylenes	N/A	75	N/A	N/A	N/A	93.3	94.7	1.42	N/A	N/A	70 - 130	30
%SS1:	N/A	500	N/A	N/A	N/A	102	105	2.00	N/A	N/A	70 - 130	30
%SS2:	N/A	500	N/A	N/A	N/A	99	101	1.64	N/A	N/A	70 - 130	30
%SS3:	N/A	500	N/A	N/A	N/A	101	104	2.41	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 31155 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710225-001A	10/03/07	10/04/07	10/13/07 3:45 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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QC SUMMARY REPORT FOR TO3

W.O. Sample Matrix: Air QC Matrix: Air WorkOrder: 0710225

EPA Method TO3	Extraction TO3				BatchID: 30991			Spiked Sample ID: N/A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	nL/L	nL/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(g)	N/A	1250	N/A	N/A	N/A	109	110	0.710	N/A	N/A	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 30991 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0710225-001A	10/03/07	10/04/07	10/15/07 12:21 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.
NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

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Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #274761; Zimmerman	Date Sampled: 12/20/07-12/21/07
		Date Received: 12/21/07
	Client Contact: Harmony TomSun	Date Reported: 01/02/08
	Client P.O.:	Date Completed: 01/02/08

WorkOrder: 0712769

January 02, 2008

Dear Harmony:

Enclosed within are:

1) The results of the **25** analyzed samples from your project: **#274761; Zimmerman,**
2) A QC report for the above samples,
3) A copy of the chain of custody, and
4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

AEI 0712769

McCAMPBELL ANALYTICAL INC.

1534 Willow Pass Road
Pittsburg, CA 94565
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 D.

EDF Required? ☒ Yes ☐ No

Report To: Harmony TomSun Bill To: same P.O. #

Company: AEI Consultants

2500 Camino Diablo, Suite 200

Walnut Creek, CA 94597 E-Mail: htomsun@aeiconsultants.com

Tele: (925) 944-2899 Fax: (925) 944-2895

Project #: 274761 Project Name: Zimmerman

Project Location: 3433 Chestnut St. Oakland, CA 94608

Sampler Signature:

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015) – w/ Silica Gel	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015) w/ Silica Gel	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other: HOLD	Comments
SB-17-4	Oakland	12/20	8:35	1	Liner		X				X																			X	
SB-17-8			8:40	1	"		"				"				X	X															
SB-17-12			8:50	1	"		"				"				X	X															
12 SB-17-W			10:45	4	VOA AMB	X					X				X	X															
SB-18-4			9:40	1	Liner		X				"																			X	
SB-18-8			9:50	1	"		"				"				X	X															
140 SB-18-W			11:00	4	VOA AMB	X					"				X	X															
SB-19-4			10:05	1	Liner		X				"																			X	
SB-19-8			10:15	1	"		"				"				X	X															
SB-19-12			10:20	1	"		"				"				X	X															
SB-19-16			10:30	1	"		"				"																			X	
145 SB-19-W			11:20	4	VOA AMB	X					"				X	X															
SB-16-4			10:40	1	Liner		X				"																			X	
SB-16-8			10:45	1	"		"				"				X	X															

Relinquished By:	Date:	Time:	Received By:
	12/21/07	1121	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 13.0°C ✓ PRESERVATION ✓

GOOD CONDITION ✓ APPROPRIATE

HEAD SPACE ABSENT ✓ CONTAINERS ✓

DECHLORINATED IN LAB ____ PERSERVED IN LAB ____

VOAS	O&G	METALS	OTH

McCAMPBELL ANALYTICAL INC.

1534 Willow Pass Road
Pittsburg, CA 94565
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 D/

EDF Required? ☒ Yes ☐ No

Report To: Harmony TomSun	Bill To: same	P.O. #
Company: AEI Consultants		
2500 Camino Diablo, Suite 200		
Walnut Creek, CA 94597	E-Mail: htomsun@aeiconsultants.com	
Tele: (925) 944-2899	Fax: (925) 944-2895	
Project #: 274761	Project Name: Zimmerman	
Project Location: 3433 Chestnut St. Oakland, CA 94608		
Sampler Signature:		

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other
SB-16-12	Oakland	12/20	10:55	1	Liner		X				X			
SB-16-W			11:30	4	VOA AMBR	X								
SB-15-4			12:25	1	Liner		X							
SB-15-8			12:30	1	"		"							
SB-15-12			12:35	1	"		"							
SB-15-16			12:45	1	"		"							
SB-14-4			1:00	1	"		"							
SB-14-8			1:05	1	"		"							
SB-14-12			1:10	1	"		"							
SB-14-16			1:20	1	"		"							
SB-13-4			1:50	1	"		"							
SB-13-8			1:55	1	"		"							
SB-13-12			2:00	1	"		"							
SB-13-16			2:10	1	"		"							

Analysis Request

BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015) w/ Silica Gel	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015) w/ Silica Gel	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI
X	X													
X	X													
X	X													
X	X													
X	X													
X	X													
X	X													
X	X													

Other: HOLD

Comment

Relinquished By:	Date:	Time:	Received By:
	12/21/07	1121	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

	VOAS	O&G	METALS	OTH
ICE/t°				
GOOD CONDITION				
HEAD SPACE ABSENT				
DECHLORINATED IN LAB				
PRESERVATION APPROPRIATE				
CONTAINERS				
PERSERVED IN LAB				

McCAMPBELL ANALYTICAL INC.

1534 Willow Pass Road
Pittsburg, CA 94565
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DA

EDF Required? ☒ Yes ☐ No

Report To: Harmony TomSun	**Bill To:** same **P.O. #**
Company: AEI Consultants	
2500 Camino Diablo, Suite 200	
Walnut Creek, CA 94597	**E-Mail:** htomsun@aeiconsultants.com
Tele: (925) 944-2899	**Fax:** (925) 944-2895
Project #: 274761	**Project Name:** Zimmerman
Project Location: 3433 Chestnut St. Oakland, CA 94608	
Sampler Signature:	

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015) – w/ Silica Gel	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (GC/MO 8015) w/ Silica Gel	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other	Comment
SB-12-4	Oakland	12/20	2:25	1	Liner		X				X																			X	HOLD
SB-12-8			2:30	1											X	X															
SB-12-12			2:35	1											X	X															
SB-12-16			2:40	1																										X	
SB-20-4			2:50	1																										X	
SB-20-8			3:20	1											X	X															
SB-20-12			3:25	1											X	X															
SB-20-16			3:30	1																										X	
SB-21-4		12/21	8:40	1																										X	
SB-21-8			8:45	1											X	X															
SB-21-12			8:50	1											X	X															
SB-21-16			8:55	1																										X	
SB-22-4			9:20	1																										X	
SB-22-8			9:25	1											X	X															

Relinquished By:	Date:	Time:	Received By:
	12/21/07	1121	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

	VOAS	O&G	METALS	OTE
ICE/t°		PRESERVATION		
GOOD CONDITION		APPROPRIATE		
HEAD SPACE ABSENT		CONTAINERS		
DECHLORINATED IN LAB		PERSERVED IN LAB		

McCAMPBELL ANALYTICAL INC.

1534 Willow Pass Road
Pittsburg, CA 94565
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 D/

EDF Required? ☒ Yes ☐ No

Report To: Harmony TomSun Bill To: same P.O. #

Company: AEI Consultants

2500 Camino Diablo, Suite 200

Walnut Creek, CA 94597 E-Mail: htomsun@aeiconsultants.com

Tele: (925) 944-2899 Fax: (925) 944-2895

Project #: 274761 Project Name: Zimmerman

Project Location: 3433 Chestnut St, Oakland, CA 94608

Sampler Signature:

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	Analysis Request: BTEX & TPH as Gas (602/8020 + 8015)/MTBE	Analysis Request: TPH as Diesel (8015) w/ silica gel	Analysis Request: Total Petroleum Oil & Grease (5520 E&F/B&F)	Analysis Request: Total Petroleum Hydrocarbons (418.1)	Analysis Request: HVOCs EPA 8260	Analysis Request: BTEX ONLY (EPA 602 / 8020)	Analysis Request: TPH Multi-Range (GD/MO 8015) w/ Silica Gel	Analysis Request: EPA 608 / 8080 PCB's ONLY	Analysis Request: EPA 624 / 8260	Analysis Request: EPA 625 / 8270 - SVOCs	Analysis Request: PAH's / PNA's by EPA 625 / 8270 / 8310	Analysis Request: CAM-17 Metals 6020	Analysis Request: LUFT 5 Metals	Analysis Request: Lead (7240/7421/239.2/6010)	Analysis Request: RCI	Other	Comment
SB-22-12	Oakland	12/21	9:35	1	Liner		X				X				X	X														HOLD
SB-22-16			9:45	1	1		X				X																			X

Relinquished By:	Date:	Time:	Received By:
	12/21/07	1121	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° _____ VOAS | O&G | METALS | OTH

GOOD CONDITION _____ PRESERVATION _____

HEAD SPACE ABSENT _____ APPROPRIATE

DECHLORINATED IN LAB _____ CONTAINERS _____

PERSERVED IN LAB _____

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0712769 **ClientID: AEL**

☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty

Report to:
Harmony TomSun
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
Email: htomsun@aeiconsultants.com
TEL: (925) 283-6000 FAX: (925) 944-2895
ProjectNo: #274761; Zimmerman
PO:

Bill to:
Denise Mockel
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
dmockel@aeiconsultants.com

Requested TAT: 5 days

Date Received: **12/21/2007**
Date Printed: **12/21/2007**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0712769-002	SB-17-8	Soil	12/20/07 8:40:00	☐	A		A	A								
0712769-003	SB-17-12	Soil	12/20/07 8:50:00	☐	A			A								
0712769-004	SB-17-W	Water	12/20/07 10:45:00	☐		A			B							
0712769-006	SB-18-8	Soil	12/20/07 9:50:00	☐	A			A								
0712769-007	SB-18-W	Water	12/20/07 11:00:00	☐		A			B							
0712769-009	SB-19-8	Soil	12/20/07 10:15:00	☐	A			A								
0712769-010	SB-19-12	Soil	12/20/07 10:20:00	☐	A			A								
0712769-012	SB-19-W	Water	12/20/07 11:20:00	☐		A			B							
0712769-014	SB-16-8	Soil	12/20/07 10:45:00	☐	A			A								
0712769-016	SB-16-W	Water	12/20/07 11:30:00	☐		A			B							
0712769-018	SB-15-8	Soil	12/20/07 12:30:00	☐	A			A								
0712769-019	SB-15-12	Soil	12/20/07 12:35:00	☐	A			A								
0712769-022	SB-14-8	Soil	12/20/07 1:05:00	☐	A			A								
0712769-023	SB-14-12	Soil	12/20/07 1:10:00	☐	A			A								
0712769-026	SB-13-8	Soil	12/20/07 1:55:00	☐	A			A								

Test Legend:

1	G-MBTEX_S	2	G-MBTEX_W	3	PREDF REPORT	4	TPH(D)WSG_S	5	TPH(D)WSG_W
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0712769 **ClientID: AEL**

☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty

Report to:
Harmony TomSun
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
Email: htomsun@aeiconsultants.com
TEL: (925) 283-6000 FAX: (925) 944-2895
ProjectNo: #274761; Zimmerman
PO:

Bill to:
Denise Mockel
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
dmockel@aeiconsultants.com

Requested TAT: 5 days

Date Received: **12/21/2007**
Date Printed: **12/21/2007**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0712769-027	SB-13-12	Soil	12/20/07 2:00:00	☐	A			A								
0712769-028	SB-13-16	Soil	12/20/07 2:10:00	☐	A			A								
0712769-030	SB-12-8	Soil	12/20/07 2:30:00	☐	A			A								
0712769-031	SB-12-12	Soil	12/20/07 2:35:00	☐	A			A								
0712769-034	SB-20-8	Soil	12/20/07 3:20:00	☐	A			A								
0712769-035	SB-20-12	Soil	12/20/07 3:25:00	☐	A			A								
0712769-038	SB-21-8	Soil	12/21/07 8:45:00	☐	A			A								
0712769-039	SB-21-12	Soil	12/21/07 8:50:00	☐	A			A								
0712769-042	SB-22-8	Soil	12/21/07 9:25:00	☐	A			A								
0712769-043	SB-22-12	Soil	12/21/07 9:35:00	☐	A			A								

Test Legend:

1	G-MBTEX_S	2	G-MBTEX_W	3	PREDF REPORT	4	TPH(D)WSG_S	5	TPH(D)WSG_W
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

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"When Quality Counts"

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **12/21/07 4:58:38 PM**

Project Name: **#274761; Zimmerman**

Checklist completed and reviewed by: Melissa Valles

WorkOrder N°: **0712769** Matrix Soil/Water

Carrier: Client Drop-In

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 13°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
TTLC Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑

Client contacted: Date contacted: Contacted by:

Comments:

McCampbell Analytical, Inc.
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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 12/20/07-12/21/07
2500 Camino Diablo, Ste. #200		Date Received: 12/21/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 12/21/07-12/28/07
	Client P.O.:	Date Analyzed 12/22/07-12/28/07

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method SW5030B Analytical methods SW8021B/8015Cm Work Order: 0712769

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
002A	SB-17-8	S	ND	ND	ND	ND	ND	ND	1	83
003A	SB-17-12	S	ND	ND	ND	ND	ND	ND	1	84
004A	SB-17-W	W	1100,g,m	ND	ND	6.2	ND	4.2	1	110
006A	SB-18-8	S	ND	ND	ND	ND	ND	ND	1	78
007A	SB-18-W	W	ND	ND	ND	ND	ND	ND	1	96
009A	SB-19-8	S	ND	ND	ND	ND	ND	ND	1	100
010A	SB-19-12	S	6.7,g,m	ND	ND	ND	ND	ND	1	90
012A	SB-19-W	W	ND	ND	ND	ND	ND	ND	1	95
014A	SB-16-8	S	ND	ND	ND	ND	ND	ND	1	97
016A	SB-16-W	W	88,a	ND	0.60	ND	ND	0.83	1	107
018A	SB-15-8	S	ND	ND	ND	ND	ND	ND	1	100
019A	SB-15-12	S	390,a	ND<2.5	2.7	0.47	6.7	13	50	103
022A	SB-14-8	S	ND	ND	0.0092	ND	ND	ND	1	100
023A	SB-14-12	S	910,b,m	ND<2.5	3.3	0.43	10	16	50	---#
026A	SB-13-8	S	180,b,m	ND<0.50	0.46	0.10	2.5	2.7	10	110
027A	SB-13-12	S	170,b,m	ND<0.50	1.1	0.21	2.4	6.7	10	105

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high organic / MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) value derived using a client specified carbon range; o) results are reported on a dry weight basis; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 12/20/07-12/21/07
2500 Camino Diablo, Ste. #200		Date Received: 12/21/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 12/21/07-12/28/07
	Client P.O.:	Date Analyzed 12/22/07-12/28/07

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method SW5030B Analytical methods SW8021B/8015Cm Work Order: 0712769

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
028A	SB-13-16	S	5.7,a	ND	0.87	0.017	0.12	0.10	1	83
030A	SB-12-8	S	25,b,m	ND<0.10	0.097	0.024	0.81	1.3	2	89
031A	SB-12-12	S	82,b,m	ND<0.50	0.74	0.14	1.5	2.9	10	100
034A	SB-20-8	S	89,b,m	ND<0.25	0.070	0.14	0.050	0.14	5	103
035A	SB-20-12	S	99,a	ND<0.17	0.61	0.061	1.6	1.4	3.3	119
038A	SB-21-8	S	ND	ND	ND	ND	ND	ND	1	98
039A	SB-21-12	S	26,a	ND	0.28	0.048	0.31	0.30	1	91
042A	SB-22-8	S	24,g,m	ND	ND	0.070	0.016	0.059	1	89
043A	SB-22-12	S	310,b,m	ND<1.7	0.17	ND<0.17	4.1	3.2	33	127

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high organic / MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) value derived using a client specified carbon range; o) results are reported on a dry weight basis; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 12/20/07-12/21/07
2500 Camino Diablo, Ste. #200		Date Received: 12/21/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 12/21/07
	Client P.O.:	Date Analyzed 12/27/07-12/31/07

Diesel Range (C10-C23) Extractable Hydrocarbons with Silica Gel Clean-Up*

Extraction method SW3510C/3630C/SW3550C/3630C Analytical methods SW8015C Work Order: 0712769

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0712769-002A	SB-17-8	S	ND	1	115
0712769-003A	SB-17-12	S	ND	1	114
0712769-004B	SB-17-W	W	320,d	1	114
0712769-006A	SB-18-8	S	18,g,b	5	104
0712769-007B	SB-18-W	W	1800,g,b	2	83
0712769-009A	SB-19-8	S	ND	1	118
0712769-010A	SB-19-12	S	ND	1	115
0712769-012B	SB-19-W	W	280,g,b	2	92
0712769-014A	SB-16-8	S	ND	1	116
0712769-016B	SB-16-W	W	480,g,d	2	88
0712769-018A	SB-15-8	S	ND	1	111
0712769-019A	SB-15-12	S	61,d	20	101
0712769-022A	SB-14-8	S	ND	1	109
0712769-023A	SB-14-12	S	83,d	5	98
0712769-026A	SB-13-8	S	66,d	2	116
0712769-027A	SB-13-12	S	74,d	10	109

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	1.0	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit; r) results are reported on a dry weight basis

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 12/20/07-12/21/07
2500 Camino Diablo, Ste. #200		Date Received: 12/21/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 12/21/07
	Client P.O.:	Date Analyzed 12/27/07-12/31/07

Diesel Range (C10-C23) Extractable Hydrocarbons with Silica Gel Clean-Up*

Extraction method SW3510C/3630C/SW3550C/3630C Analytical methods SW8015C Work Order: 0712769

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0712769-028A	SB-13-16	S	ND	1	107
0712769-030A	SB-12-8	S	1.8,d	1	118
0712769-031A	SB-12-12	S	23,d	2	112
0712769-034A	SB-20-8	S	9.7,d	1	101
0712769-035A	SB-20-12	S	32,d	5	117
0712769-038A	SB-21-8	S	ND	1	97
0712769-039A	SB-21-12	S	5.8,d	1	102
0712769-042A	SB-22-8	S	ND	1	95
0712769-043A	SB-22-12	S	150,d	20	106

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	1.0	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit; r) results are reported on a dry weight basis

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

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Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder 0712769

EPA Method SW8021B/8015Cm	Extraction SW5030B	BatchID: 32724	Spiked Sample ID: 0712737-001A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	0.60	92.6	97.1	4.79	104	97.8	6.17	70 - 130	30	70 - 130	30
MTBE	ND	0.10	87.1	83.4	4.26	116	114	1.96	70 - 130	30	70 - 130	30
Benzene	ND	0.10	93.9	92.1	1.97	99.7	94.3	5.56	70 - 130	30	70 - 130	30
Toluene	ND	0.10	84.3	83.2	1.29	116	114	2.32	70 - 130	30	70 - 130	30
Ethylbenzene	ND	0.10	97.2	98.8	1.58	110	107	2.61	70 - 130	30	70 - 130	30
Xylenes	ND	0.30	90.3	91.7	1.47	120	120	0	70 - 130	30	70 - 130	30
%SS:	89	0.10	90	86	4.41	101	97	3.31	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 32724 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0712769-002A	12/20/07 8:40 AM	12/21/07	12/22/07 11:26 PM	0712769-003A	12/20/07 8:50 AM	12/21/07	12/23/07 12:33 AM
0712769-006A	12/20/07 9:50 AM	12/21/07	12/22/07 9:58 AM	0712769-009A	12/20/07 10:15 AM	12/21/07	12/27/07 5:23 PM
0712769-010A	12/20/07 10:20 AM	12/21/07	12/22/07 11:39 AM	0712769-014A	12/20/07 10:45 AM	12/21/07	12/27/07 5:53 PM
0712769-018A	12/20/07 12:30 PM	12/21/07	12/27/07 6:24 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder 0712769

EPA Method SW8021B/8015Cm	Extraction SW5030B	BatchID: 32727	Spiked Sample ID: 0712762-006A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	0.60	107	102	4.60	111	108	2.92	70 - 130	30	70 - 130	30
MTBE	ND	0.10	103	99.9	3.11	119	111	6.52	70 - 130	30	70 - 130	30
Benzene	ND	0.10	93.2	97.7	4.79	99.1	95.8	3.43	70 - 130	30	70 - 130	30
Toluene	ND	0.10	86	90.5	4.85	116	114	0.947	70 - 130	30	70 - 130	30
Ethylbenzene	ND	0.10	100	104	3.87	110	110	0	70 - 130	30	70 - 130	30
Xylenes	ND	0.30	95.3	96.7	1.39	120	120	0	70 - 130	30	70 - 130	30
%SS:	94	0.10	88	93	5.23	99	99	0	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 32727 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0712769-019A	12/20/07 12:35 PM	12/21/07	12/22/07 11:14 PM	0712769-022A	12/20/07 1:05 PM	12/21/07	12/27/07 6:55 PM
0712769-023A	12/20/07 1:10 PM	12/21/07	12/22/07 8:04 PM	0712769-026A	12/20/07 1:55 PM	12/21/07	12/24/07 1:47 AM
0712769-027A	12/20/07 2:00 PM	12/21/07	12/23/07 1:30 PM	0712769-028A	12/20/07 2:10 PM	12/21/07	12/22/07 4:09 PM
0712769-030A	12/20/07 2:30 PM	12/21/07	12/24/07 1:14 AM	0712769-031A	12/20/07 2:35 PM	12/21/07	12/24/07 12:40 AM
0712769-034A	12/20/07 3:20 PM	12/21/07	12/22/07 5:50 PM	0712769-035A	12/20/07 3:25 PM	12/21/07	12/22/07 4:43 PM
0712769-038A	12/21/07 8:45 AM	12/21/07	12/27/07 7:25 PM	0712769-039A	12/21/07 8:50 AM	12/21/07	12/23/07 3:55 AM
0712769-042A	12/21/07 9:25 AM	12/21/07	12/23/07 2:48 AM	0712769-043A	12/21/07 9:35 AM	12/21/07	12/22/07 5:16 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

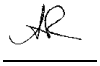
% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

DHS ELAP Certification N° 1644


QA/QC Officer

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder 0712769

EPA Method SW8021B/8015Cm **Extraction SW5030B** **BatchID: 32748** **Spiked Sample ID: 0712748-005A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	104	104	0	109	119	8.16	70 - 130	30	70 - 130	30
MTBE	ND	10	89.9	103	13.6	85.9	90.6	5.34	70 - 130	30	70 - 130	30
Benzene	ND	10	89	96.4	7.95	91.3	94.2	3.10	70 - 130	30	70 - 130	30
Toluene	ND	10	89.5	92.9	3.75	97.9	102	4.14	70 - 130	30	70 - 130	30
Ethylbenzene	ND	10	102	101	1.44	106	106	0	70 - 130	30	70 - 130	30
Xylenes	ND	30	100	96.7	3.39	120	120	0	70 - 130	30	70 - 130	30
%SS:	92	10	99	102	2.65	91	96	5.11	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 32748 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0712769-004A	12/20/07 10:45 AM	12/28/07	12/28/07 9:26 AM	0712769-007A	12/20/07 11:00 AM	12/28/07	12/28/07 10:00 AM
0712769-012A	12/20/07 11:20 AM	12/28/07	12/28/07 11:06 AM	0712769-016A	12/20/07 11:30 AM	12/28/07	12/28/07 7:08 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

DHS ELAP Certification N° 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder 0712769

EPA Method SW8015C **Extraction SW3510C/3630C** **BatchID: 32758** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(d)	N/A	1000	N/A	N/A	N/A	111	113	1.78	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	117	118	1.01	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 32758 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0712769-004B	12/20/07 10:45 AM	12/21/07	12/28/07 5:55 PM	0712769-007B	12/20/07 11:00 AM	12/21/07	12/31/07 1:52 PM
0712769-012B	12/20/07 11:20 AM	12/21/07	12/31/07 11:50 AM	0712769-016B	12/20/07 11:30 AM	12/21/07	12/28/07 7:04 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder: 0712769

EPA Method SW8015C	Extraction SW3550C/3630C	BatchID: 32667	Spiked Sample ID: 0712612-005A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(d)	31	20	70.3	72.8	1.07	102	99.4	2.40	70 - 130	30	70 - 130	30
%SS:	101	50	95	102	7.01	102	100	1.25	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 32667 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0712769-002A	12/20/07 8:40 AM	12/21/07	12/27/07 4:01 AM	0712769-003A	12/20/07 8:50 AM	12/21/07	12/27/07 5:10 AM
0712769-006A	12/20/07 9:50 AM	12/21/07	12/28/07 9:20 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder: 0712769

EPA Method SW8015C	Extraction SW3550C/3630C	BatchID: 32706	Spiked Sample ID: 0712684-004A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(d)	4.4	20	101	96.6	3.50	121	119	1.22	70 - 130	30	70 - 130	30
%SS:	117	50	113	113	0	115	117	1.34	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 32706 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0712769-009A	12/20/07 10:15 AM	12/21/07	12/27/07 7:26 AM	0712769-010A	12/20/07 10:20 AM	12/21/07	12/27/07 8:35 AM
0712769-014A	12/20/07 10:45 AM	12/21/07	12/28/07 8:35 AM	0712769-018A	12/20/07 12:30 PM	12/21/07	12/28/07 10:52 AM
0712769-019A	12/20/07 12:35 PM	12/21/07	12/28/07 4:04 AM	0712769-022A	12/20/07 1:05 PM	12/21/07	12/28/07 1:47 AM
0712769-023A	12/20/07 1:10 PM	12/21/07	12/28/07 1:14 PM	0712769-026A	12/20/07 1:55 PM	12/21/07	12/28/07 3:38 PM
0712769-027A	12/20/07 2:00 PM	12/21/07	12/27/07 7:32 PM	0712769-028A	12/20/07 2:10 PM	12/21/07	12/28/07 8:35 AM
0712769-030A	12/20/07 2:30 PM	12/21/07	12/28/07 4:47 PM	0712769-031A	12/20/07 2:35 PM	12/21/07	12/28/07 1:14 PM
0712769-034A	12/20/07 3:20 PM	12/21/07	12/28/07 1:22 PM	0712769-035A	12/20/07 3:25 PM	12/21/07	12/28/07 8:12 PM
0712769-038A	12/21/07 8:45 AM	12/21/07	12/27/07 11:07 PM	0712769-039A	12/21/07 8:50 AM	12/21/07	12/28/07 6:13 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder: 0712769

EPA Method SW8015C	Extraction SW3550C/3630C	BatchID: 32765	Spiked Sample ID: 0712769-043A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(d)	150	20	NR	NR	NR	93.7	106	12.7	70 - 130	30	70 - 130	30
%SS:	106	50	101	101	0	109	111	1.39	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 32765 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0712769-042A	12/21/07 9:25 AM	12/21/07	12/28/07 2:40 AM	0712769-043A	12/21/07 9:35 AM	12/21/07	12/27/07 6:18 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #274761; Zimmerman	Date Sampled: 12/20/07-12/21/07
		Date Received: 12/21/07
	Client Contact: Harmony TomSun	Date Reported: 01/09/08
	Client P.O.:	Date Completed: 01/09/08

WorkOrder: 0712769

January 09, 2008

Dear Harmony:

Enclosed within are:

1) The results of the **5** analyzed samples from your project: **#274761; Zimmerman,**
2) A QC report for the above samples,
3) A copy of the chain of custody, and
4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

McCAMPBELL ANALYTICAL INC.

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Pittsburg, CA 94565
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

EDF Required? ☒ Yes ☐ No

Report To: Harmony TomSun Bill To: same P.O. #

Company: AEI Consultants

2500 Camino Diablo, Suite 200

Walnut Creek, CA 94597 E-Mail: htomsun@aeiconsultants.com

Tele: (925) 944-2899 Fax: (925) 944-2895

Project #: 274761 Project Name: Zimmerman

Project Location: 3433 Chestnut St. Oakland, CA 94608

Sampler Signature:

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015) –Multi-range	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015) w/ Silica Gel	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other	Comments
SB-12-4	Oakland	12/20	2:25	1	Liner		X				X																			HOLD	added 6 MBTEX on 1/3/08
SB-12-8			2:30	1																											
SB-12-12			2:35	1																											
SB-12-16			2:40	1											X																off hold 1-3-08
SB-20-4			2:50	1																											
SB-20-8			3:20	1																											
SB-20-12			3:25	1																											
SB-20-16			3:30	1											X																off hold 1-3-08
SB-21-4		12/21	8:40	1																											
SB-21-8			8:45	1																											
SB-21-12			8:50	1																											
SB-21-16			8:55	1																											
SB-22-4			9:20	1																											
SB-22-8			9:25	1																											

Relinquished By:	Date:	Time:	Received By:
	12/21/07	1121	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 13
GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB

PRESERVATION	VOAS	O&G	METALS	OTHER
APPROPRIATE CONTAINERS				
PERSERVED IN LAB				

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CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

EDF Required? ☒ Yes ☐ No

Report To: Harmony TomSun **Bill To:** same **P.O. #**

Company: AEI Consultants
2500 Camino Diablo, Suite 200
Walnut Creek, CA 94597 **E-Mail:** htomsun@aeiconsultants.com

Tele: (925) 944-2899 **Fax:** (925) 944-2895

Project #: 274761 **Project Name:** Zimmerman

Project Location: 3433 Chestnut St. Oakland, CA 94608

Sampler Signature: [signature]

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015) –Multi-range	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015) w/ Silica Gel	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other: HOLD	Other	Other	Other	Comments: Added G-mbtex on 1/3/08
SB-16-12	Oakland	12/20	10:55	1	Liner		X				X																			HOLD				
SB-16-W			11:30	4	VOA AMB	X																												
SB-15-4			12:25	1	Liner		X																											
SB-15-8			12:30	1																														
SB-15-12			12:35	1																														
SB-15-16			12:45	1											X																			off hold 1-3-08
SB-14-4			1:00	1																														
SB-14-8			1:05	1																														
SB-14-12			1:10	1																														
SB-14-16			1:20	1											X																			off Hold 1-3-08
SB-13-4			1:50	1																														
SB-13-8			1:55	1																														
SB-13-12			2:00	1																														
SB-13-16			2:10	1																														

Relinquished By:	Date:	Time:	Received By:
[signature]	12/21/07	11:21	[signature]
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 13
GOOD CONDITION ____
HEAD SPACE ABSENT ____
DECHLORINATED IN LAB ____

	VOAS	O&G	METALS	OTHER
PRESERVATION				

APPROPRIATE CONTAINERS ____
PERSERVED IN LAB ____

McCAMPBELL ANALYTICAL INC.

1534 Willow Pass Road
Pittsburg, CA 94565
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

EDF Required? ☒ Yes ☐ No

Report To: Harmony TomSun Bill To: same P.O. #

Company: AEI Consultants

2500 Camino Diablo, Suite 200

Walnut Creek, CA 94597 E-Mail: htomsun@aeiconsultants.com

Tele: (925) 944-2899 Fax: (925) 944-2895

Project #: 274761 Project Name: Zimmerman

Project Location: 3433 Chestnut St. Oakland, CA 94608

Sampler Signature:

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other
SB-22-12	Oakland	12/21	9:35	1	Liner		X				X			
SB-22-16			9:45	1	1		X				X			

Analysis Request

BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015) –Multi-range	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015) w/ Silica Gel	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI
☒														

Other: HOLD

Comments: added 6-MTBE on 1/3/08. off hold 1-3-08

Relinquished By:	Date:	Time:	Received By:
	12/31/07	1121	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 13
GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB

PRESERVATION	VOAS	O&G	METALS	OTHER
APPROPRIATE CONTAINERS				

PERSERVED IN LAB

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 071276 A **ClientID: AEL**

☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty

Report to:
Harmony TomSun
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597

Email: htomsun@aeiconsultants.com
TEL: (925) 283-6000 FAX: (925) 944-2895
ProjectNo: #274761; Zimmerman
PO:

Bill to:
Denise Mockel
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
dmockel@aeiconsultants.com

Requested TAT: 5 days
Date Received: **12/21/2007**
Date Add-On: **01/03/2008**
Date Printed: **01/07/2008**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0712769-020	SB-15-16	Soil	12/20/07 12:45:00	☐	A											
0712769-024	SB-14-16	Soil	12/20/07 1:20:00	☐	A											
0712769-032	SB-12-16	Soil	12/20/07 2:40:00	☐	A											
0712769-036	SB-20-16	Soil	12/20/07 3:30:00	☐	A											
0712769-044	SB-22-16	Soil	12/21/07 9:45:00	☐	A											

Test Legend:

1	G-MBTEX_S	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments: Added G-MBTEX on 01/03/08.

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 12/20/07-12/21/07
2500 Camino Diablo, Ste. #200		Date Received: 12/21/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 01/03/08
	Client P.O.:	Date Analyzed 01/04/08-01/08/08

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method SW5030B Analytical methods SW8021B/8015Cm Work Order: 0712769

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
020A	SB-15-16	S	40,a	ND<0.1	0.26	0.047	0.37	1.3	1	108
024A	SB-14-16	S	ND	ND	ND	ND	ND	ND	1	90
032A	SB-12-16	S	20,a	ND<0.25	0.51	0.083	0.48	1.8	5	91
036A	SB-20-16	S	ND	ND	ND	ND	ND	ND	1	90
044A	SB-22-16	S	9.2,a	ND	0.021	0.032	0.0052	0.0083	1	93

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA	NA	NA	NA	NA	1	ug/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high organic / MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) value derived using a client specified carbon range; o) results are reported on a dry weight basis; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder 0712769

EPA Method SW8021B/8015Cm	Extraction SW5030B	BatchID: 32986	Spiked Sample ID: 0801113-001A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	0.60	103	103	0	103	109	5.20	70 - 130	30	70 - 130	30
MTBE	ND	0.10	107	111	3.35	112	109	2.89	70 - 130	30	70 - 130	30
Benzene	ND	0.10	94.3	98.7	4.54	92.6	93.1	0.596	70 - 130	30	70 - 130	30
Toluene	ND	0.10	82	84.5	2.87	82.9	83.5	0.709	70 - 130	30	70 - 130	30
Ethylbenzene	ND	0.10	96.5	98.6	2.15	93.2	95.6	2.60	70 - 130	30	70 - 130	30
Xylenes	ND	0.30	92	93	1.08	91	91	0	70 - 130	30	70 - 130	30
%SS:	94	0.10	94	99	5.10	93	92	1.81	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 32986 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0712769-020A	12/20/07 12:45 PM	01/03/08	01/04/08 1:41 PM	0712769-024A	12/20/07 1:20 PM	01/03/08	01/08/08 2:19 AM
0712769-032A	12/20/07 2:40 PM	01/03/08	01/07/08 11:46 PM	0712769-036A	12/20/07 3:30 PM	01/03/08	01/04/08 4:15 PM
0712769-044A	12/21/07 9:45 AM	01/03/08	01/04/08 2:12 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

McCampbell Analytical, Inc.
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1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #274761; Zimmerman	Date Sampled: 12/31/07
		Date Received: 12/31/07
	Client Contact: Harmony TomSun	Date Reported: 01/08/08
	Client P.O.:	Date Completed: 01/08/08

WorkOrder: 0712925

January 08, 2008

Dear Harmony:

Enclosed within are:

1) The results of the **7** analyzed samples from your project: **#274761; Zimmerman,**
2) A QC report for the above samples,
3) A copy of the chain of custody, and
4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

0712925

McCAMPBELL ANALYTICAL INC.

1534 Willow Pass Road
Pittsburg, CA 94565
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

EDF Required? ☒ Yes ☐ No

Report To: Harmony TomSun Bill To: same P.O. #

Company: AEI Consultants

2500 Camino Diablo, Suite 200

Walnut Creek, CA 94597 E-Mail: htomsun@aeiconsultants.com

Tele: (925) 944-2899 Fax: (925) 944-2895

Project #: 274761 Project Name: Zimmerman

Project Location: 3433 Chestnut St. Oakland, CA 94608

Sampler Signature:

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	Soil	Air	Sludge	Other	METHOD PRESERVED Ice	HCl	HNO_3	Other
SB-12-W	Oakland	12/31/07	12:15	5		X					X			
SB-13-W			11:45	5										
SB-14-W			12:50	5										
SB-15-W			12:35	5										
SB-20-W			12:25	5										
SB-21-W			12:00	5										
SB-22-W			11:20	5										

Analysis Request

BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015) ~~Multi-range~~ w/ Silica gel	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	HVOCs EPA 8260	BTEX ONLY (EPA 602 / 8020)	TPH Multi-Range (G/D/MO 8015) w/ Silica Gel	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8260	EPA 625 / 8270 - SVOCs	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals 6020	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI
X	X													

Other | Comments

Relinquished By:	Date:	Time:	Received By:
	12/31/07	5:30p	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 5.8

GOOD CONDITION ✓

HEAD SPACE ABSENT

DECHLORINATED IN LAB PERSERVED IN LAB

	VOAS	O&G	METALS	OTHER
PRESERVATION				
APPROPRIATE ✓				
CONTAINERS				

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0712925 **ClientID: AEL**

☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty

Report to:
Harmony TomSun
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
Email: htomsun@aeiconsultants.com
TEL: (925) 944-2899 FAX: (925) 944-2895
ProjectNo: #274761; Zimmerman
PO:

Bill to:
Denise Mockel
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
dmockel@aeiconsultants.com

Requested TAT: 5 days

Date Received: **12/31/2007**
Date Printed: **12/31/2007**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0712925-001	SB-12-W	Water	12/31/07 12:15:00	☐	A	A	B									
0712925-002	SB-13-W	Water	12/31/07 11:45:00	☐	A		B									
0712925-003	SB-14-W	Water	12/31/07 12:50:00	☐	A		B									
0712925-004	SB-15-W	Water	12/31/07 12:35:00	☐	A		B									
0712925-005	SB-20-W	Water	12/31/07 12:25:00	☐	A		B									
0712925-006	SB-21-W	Water	12/31/07 12:00:00	☐	A		B									
0712925-007	SB-22-W	Water	12/31/07 11:20:00	☐	A		B									

Test Legend:

1	G-MBTEX_W	2	PREDF REPORT	3	TPH(D)WSG_W	4		5	
6		7		8		9		10	
11		12							

Prepared by: Ana Venegas

Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.
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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **12/31/07 5:38:00 PM**

Project Name: **#274761; Zimmerman**

Checklist completed and reviewed by: Ana Venegas

WorkOrder N°: **0712925** Matrix Water

Carrier: Client Drop-In

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 5.8°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
TTLC Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑

Client contacted: Date contacted: Contacted by:

Comments:

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 12/31/07
2500 Camino Diablo, Ste. #200		Date Received: 12/31/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 01/03/08-01/05/08
	Client P.O.:	Date Analyzed 01/03/08-01/05/08

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method SW5030B Analytical methods SW8021B/8015Cm Work Order: 0712925

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	SB-12-W	W	35,000,a	ND<450	5200	110	1000	1800	50	93
002A	SB-13-W	W	29,000,a	ND<250	5300	80	1400	3900	50	104
003A	SB-14-W	W	23,000,a	ND<240	2600	15	1500	1800	20	101
004A	SB-15-W	W	36,000,a	ND<350	7700	190	1600	4700	50	99
005A	SB-20-W	W	28,000,a	ND<160	3400	22	1200	930	20	97
006A	SB-21-W	W	8100,a	ND<50	1600	ND<5.0	160	84	10	107
007A	SB-22-W	W	2600,a	ND<10	110	0.90	150	55	1	96

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #274761; Zimmerman	Date Sampled: 12/31/07
2500 Camino Diablo, Ste. #200		Date Received: 12/31/07
Walnut Creek, CA 94597	Client Contact: Harmony TomSun	Date Extracted: 12/31/07
	Client P.O.:	Date Analyzed 01/04/08-01/05/08

Diesel Range (C10-C23) Extractable Hydrocarbons with Silica Gel Clean-Up*

Extraction method SW3510C/3630C Analytical methods SW8015C Work Order: 0712925

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0712925-001B	SB-12-W	W	4900,d	1	113
0712925-002B	SB-13-W	W	5100,d	1	111
0712925-003B	SB-14-W	W	12,000,d,b	1	115
0712925-004B	SB-15-W	W	3000,d	1	109
0712925-005B	SB-20-W	W	3900,d	1	110
0712925-006B	SB-21-W	W	1200,d	1	110
0712925-007B	SB-22-W	W	620,d	1	110

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	NA	NA

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract/matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder 0712925

EPA Method SW8021B/8015Cm **Extraction SW5030B** **BatchID: 32918** **Spiked Sample ID: 0712749-010A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	101	108	6.81	88.9	74.9	17.0	70 - 130	30	70 - 130	30
MTBE	ND	10	114	119	3.90	88.5	93.3	5.20	70 - 130	30	70 - 130	30
Benzene	ND	10	93.3	96.5	3.33	89	95.2	6.70	70 - 130	30	70 - 130	30
Toluene	ND	10	91.2	94	3.02	87.7	92.8	5.60	70 - 130	30	70 - 130	30
Ethylbenzene	ND	10	94.2	96.1	1.93	88.6	92.9	4.67	70 - 130	30	70 - 130	30
Xylenes	ND	30	94.6	95.6	1.04	81	86	5.99	70 - 130	30	70 - 130	30
%SS:	93	10	101	100	1.23	107	109	1.76	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 32918 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0712925-001A	12/31/07 12:15 PM	01/03/08	01/03/08 2:30 AM	0712925-002A	12/31/07 11:45 AM	01/03/08	01/03/08 11:16 AM
0712925-003A	12/31/07 12:50 PM	01/04/08	01/04/08 9:49 PM	0712925-004A	12/31/07 12:35 PM	01/03/08	01/03/08 12:22 PM
0712925-005A	12/31/07 12:25 PM	01/04/08	01/04/08 8:58 PM	0712925-006A	12/31/07 12:00 PM	01/05/08	01/05/08 12:28 AM
0712925-007A	12/31/07 11:20 AM	01/05/08	01/05/08 5:04 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

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QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0712925

EPA Method SW8015C	Extraction SW3510C/3630C	BatchID: 32919	Spiked Sample ID: N/A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(d)	N/A	1000	N/A	N/A	N/A	112	110	2.29	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	99	91	8.74	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 32919 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0712925-001B	12/31/07 12:15 PM	12/31/07	01/04/08 8:30 AM	0712925-002B	12/31/07 11:45 AM	12/31/07	01/04/08 5:19 PM
0712925-003B	12/31/07 12:50 PM	12/31/07	01/04/08 6:27 PM	0712925-004B	12/31/07 12:35 PM	12/31/07	01/04/08 8:42 PM
0712925-005B	12/31/07 12:25 PM	12/31/07	01/04/08 9:50 PM	0712925-006B	12/31/07 12:00 PM	12/31/07	01/04/08 10:57 PM
0712925-007B	12/31/07 11:20 AM	12/31/07	01/05/08 12:08 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.